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Inventory of microbial food cultures with safety demonstration in fermented food products

Update of the Bulletins of the IDF N°377-2002, N°455-2012 and N°495-2018

Inventory of microbial food cultures with safety demonstration in fermented food products

Update of the Bulletin of the IDF N°377-2002, N°455-2012 and N°495-2018

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FOREWORD

When publishing the first inventory of microbial food cultures in 2002, a project on the demonstration of the safety of microbial food cultures, it was known that updating the inventory of microbial species used in fermented food products would be a never-ending task.

In consequence, work has continued on the publication and it is, therefore, the result of a thorough evaluation of emerging scientific evidence.

The current IDF Bulletin provides an updated inventory that replaces the ones published in 2002, 2012 and 2018. It includes further food cultures species and an update of taxonomy. Because the microbial food cultures can be used in various food matrices, the inventory has also been extended to other food matrices than simply dairy and it considers multiple food sources for a food species where the inventory was initially focussing mostly on dairy fermented food products.

The work was carried out by a joint Action Team of the Standing Committee on Microbiological Hygiene (SCMH) and the Standing Committee on Dairy Science and Technology (SCDST). The present inventory has been consolidated and finalized with comments received from members of SCMH, SCDST and IDF National Committees.

All contributors are acknowledged for their participation in this extensive work which was completed in due time. This Action Team will remain active in order to monitor developments and decide on the initiation of a future update based on a number of species received for inclusion and/or major taxonomical changes.

We hope you will find this bulletin useful.

Enjoy reading it!

Caroline Emond
Director General
International Dairy Federation

Inventory of microbial food cultures with safety demonstration in fermented food products
Update of the Bulletin of the IDF N°377-2002, N°455-2012 and N° 495-2018

ABSTRACT

Since 2002, the International Dairy Federation (IDF), in collaboration with the European Food and Feed Cultures Association (EFFCA), has been conducting a project on the demonstration of the safety of microbial food cultures. The first inventory of food cultures was published in 2002 [14, 15], the scientific rationale for the inventory of microbial food cultures demonstrated as safe for use in food product(s) was published in a peer review journal in 2012 [1], and the inventory updated accordingly [2, 3, 4].

The inventory was updated for a third time in 2018 [5] to include further food cultures species and an update of taxonomy. It was then decided to extend the inventory to other food matrices than dairy and consider multiple food sources for a food species wherever the inventory was initially focusing mostly on dairy fermented food products.

A questionnaire was sent to all national committees of the IDF in 2020 for inclusion of new species, new food usages and an updated taxonomy. The current IDF Bulletin provides an updated inventory that replaces the ones published in 2002, 2012 and 2018. The changes in the composition and layout of the inventory are presented in the bulletin.

Keywords: *Food cultures, fermentation, fermented foods, food usage, taxonomy, safety demonstration, history of use.*

174 pages (A4) in English

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The Action Team members would like to thank the National Committees for their support on this project and for the numerous suggestions regarding the incorporation of new species, as well as the Scientific Committees of the IDF for their review (Analytical Methods for Dairy Microorganisms – SCAMDM; Dairy Science and Technology – SCDST; Nutrition and Health – SCNH; Microbiological Hygiene – SCMH)

The IDF Head Office and Scientific Programme Coordination Committee (SPCC) are particularly acknowledged for their practical support of the project.

1 INTRODUCTION: A POSITIVE LIST FOR USE OF FOOD CULTURES

The 20 years (plus) International Dairy Federation (IDF) European Food and Feed Cultures Association (EFFCA) initiative is not the only attempt to develop an inventory of food cultures, to provide a scientific position for regulatory guidelines for the trade of fermented food products. There have been several attempts to provide a global approach before - Campbell-Platt in 1994 [7], and afterwards, Tamang et al., in 2016 [17].

The approaches can only provide a picture of the known science at a specific time. Which is soon outdated when considering the evolution of food science in the fermentation process and with new insights into the taxonomy of microorganisms. Different initiatives have been taken by various organizations to define:

Food cultures of traditional fermented foods

- Denmark: Danish list of notified microbial cultures applied in food (last modified in 2016)
- China (1st list published in 2010 and regularly updated, food cultures)
- International Dairy Federation & European Food and Feed Cultures Association (IDF – EFFCA)
- Food Agriculture Organization of the United Nations bulletins #134 – Fermented fruits and vegetables, #138 – Fermented Cereals, #142 – Fermented grain legumes, seeds and nuts.

Safety demonstration of identified strains for use in the food chain

- European Food Safety Authority (EFSA): Biohazard Panel Qualified Presumption of Safety (QPS). QPS assessment was developed internally by the Biohazard Panel as a harmonised generic pre-assessment to support safety risk assessments performed by EFSA scientific panels. It was introduced initially for harmonising the assessment of notified biological agents across EFSA's Scientific Panels and Units.
- United States Food and Drug Agency: Generally Recognized As Safe (GRAS). Under sections 201(s) and 409 of the Federal Food, Drug, and Cosmetic Act (the Act), "any substance that is intentionally added to food is a food additive, that is subject to premarket review and approval by FDA, unless the substance is generally recognized, among qualified experts, as having been adequately shown to be safe under the

conditions of its intended use, or unless the use of the substance is otherwise exempted from the definition of a food additive".

- China (2nd list published in 2010 and regularly updated, probiotic strains for use in infant formulae).

Food cultures and their history of safe use, or strain level safety demonstration, are two approaches that will generate lists of species of micro-organisms. The comparison of these lists (The outcome) is of limited relevance as they are established with a very different level of evidence (The rationale). During a dedicated regulatory workshop in 2018 (http://miffi.org), both the QPS approach from EFSA and the IDF–EFFCA approach were discussed. The outcome has been published in a special issue of FEMS Microbiology Newsletter [6, 12]. This distinction between the QPS approach and the IDF-EFFCA approach has already been raised by EFSA following the publication of the rationale in 2012 [5], yet the debate returns regularly.

2

INCLUSION PROCESS FOR NEW FOOD CULTURE SPECIES

Since the IDF–EFFCA initiative aims to provide a positive list of food cultures in food fermentation, it needs a rationale for the construction of this list and a transparent process of inclusion. While the rationale has its specific publication, this has not been the case for the process of inclusion of new species. When contemplating the extension to various food usage, it is necessary to provide insights on how new submitted species and/or food usages are considered. In the initial publications of the IDF Bulletin #455-2012, the need for a regular update was already anticipated. The frequency of the updating process, however, depends on a significant change in the scientific demonstration of food usage, taxonomy and/or safety concerns.

The process of the incorporation of a new species composes the following steps (Annex 2):

Documentation of the history of use with peer-reviewed reference of food usage

Documentation is not just the occurrence of a microorganism in a fermented food product, but also the evidence whether the presence of the microorganism is beneficial, fortuitous or undesired. Multiple food usages are accepted.

Taxonomical identification according to international guidelines (International Union of Microbial Societies)

Classification of the International Committee on Systematics of Prokaryotes

(ICSP—http://www.the-icsp.org/)

Publications in the International Journal of Systematic and Evolutionary Microbiology (IJSEM—http://ijs.sgmjournals.org/)

Taxonomic Outline of the Bacteria and Archaea (TOBA http://www.taxonomicoutline.org/)

Amended lists of bacterial names [20]

Definition of type strain

The following criteria are, therefore, required for consideration: Species, Sub Species, Food Usage, Reference Food Usage, Type Strain, Reference Taxonomy. The information and the references are sent from each National Committee of the IDF to the Action Team members. The proposal is reviewed in duplicate by the Action Team members and a decision is taken consensually for inclusion or not. The updated list is reviewed by the referent Standing Committees (Analytical Methods for Dairy Microorganisms – SCAMDM; Dairy Science and Technology – SCDST; Nutrition and Health – SCNH; Microbiological Hygiene – SCMH) and a second round includes a review by all the National Committees before acceptance for publication in an IDF Bulletin.

Considering these different steps, an update of the IDF Bulletin takes around three years, at best, to complete. The current list of food cultures is, therefore, continuously growing despite occasional deletions (due mostly to change of taxonomy and re-assignment).

3
CHANGES IN TAXONOMY

As techniques for identification of microbial isolates evolve, so do the taxa for numerous species. The major change for this update came (finally) from the long-awaited update of taxonomy of the genus *Lactobacillus* and union of *Lactobacillaceae* and *Leuconostocaceae* [19]. Other taxonomical changes also needed to be considered.

Out of the 314 species in the inventory, 95 are new taxa (of which only 16 are, strictly speaking, new species).

Lactobacillus figidus is an invalid taxon and has been deleted.

Pediococcus cerevisiae is an invalid taxon, synonym of *Pediococcus damnosus.*

Pseudomonas syringae has been deleted from the list, recent publications highlight a role of the species as a plant pathogen and the demonstration of safe use should be done for each strain individually if a food application is to be considered. But the species cannot be granted a safety status and further inclusion in the inventory.

4

CROSS-OVER FERMENTATION AND THE APPLICATION TO VARIOUS FOOD MATRICES

As proposed by Dank and co-authors [10], “Cross-over fermentations are processes in which a microorganism from one traditional fermentation process is introduced onto a new substrate and/or to a new partner”.

Cross-over fermentation represents an interesting potential for the development of new fermented food products, considering the diversity of microorganisms used in traditional fermentation processes and the vast number of alternative substrates. The traditional use, however, which grants a history of safe use, is not applicable anymore and a specific safety demonstration for this new food usage must be demonstrated [8, 9]. In Dank and co-authors’ case demonstration [10] for the new usage of *Aspergillus oryzae*, the potential of mycotoxin production in the new food matrix should not be overlooked. The same point is valid for the present update, where *C. butyricum* is considered a food culture for a non-dairy food matrix, when it is known to be a spoiler of concern (blowing) for hard type cheeses. As such, the IDF approach has been applied to traditional fermented foods in China, with the new proposed species included in the present fourth update [18].

Guidelines, recommendations and expert reviews exist for demonstrating the steps to document and validate the safety of microorganisms used in foods, independent of the mode of action of the food cultures [13]. Even if a microorganism originates from an established traditional/artisanal fermented food, a thorough safety examination must be performed also at the strain level before it is used as a food culture [9]. Isolation of microorganisms from spontaneous fermented foods are, in many cases, the way to find an optimal starter culture, as nature has selected and domesticated it through evolution [16]. The knowledge gained from newer methods such as metagenomics for analysing fermented food will assist the understanding of microbial genetic resources and find key activities of beneficial food culture strains that will ensure process efficiency, product quality and safety of common fermented food [11].

The present update merges the 31 food usages of the previous version of the inventory into seven categories, 617 food usages proposed for the 325 listed species:

Bakery	47	Plant Based	187
Alcoholic Beverages	102	Seafood	31
Dairy	176	Vinegar	16
Meat	58		

5 CONCLUSION

Establishing a positive list of food cultures with a history of safe use in the various fermented food matrices is an endless task. The evolution of science in Food Microbiology, the input of molecular technologies helping to unravel the unknown (which is far bigger than anticipated) and the major trend in recent years to cross-over fermentation makes this work challenging yet highly necessary. The extension to non-dairy food matrices also provides a reflection upon what is really known and understood about the use of food cultures in a specific matrix. Cross-over fermentation does not only offer the opportunity to apply a fermentation process to a new food matrix, it also helps to build evidence and to understand the historical empirical process that was led by a failure/success approach to the traditional use of food cultures.

This also challenges the approach of the history of safe use for the safety demonstration of a food culture. There can be more than simple observation of the facts, deciphering the biochemical mechanisms for better and/or new application.

This fourth update was perhaps the most challenging to accomplish - enabling the dairy microbiology community of the IDF to consider other food matrices, but it is only the first landmark which will be followed by other regular updates as science and knowledge continue to grow.

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Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium adolescentis*		Plant Based	Macedo, R.F., Freitas, R.J., Pandey, A., Soccol, C.R. (1999). Production and shelf-life studies of low cost beverage with soy milk, buffalo cheese whey and cow milk fermented by mixed cultures of Lactobacillus casei ssp. shirota and Bifidobacterium adolescentis. J Basic Microbiol. 39:243-51.	ATCC 15703	Reuter, G. (1963). Vergleichende Untersuchunge über die Bifidus-Flora im Säuglings- und Erwachsenenstuhl.Zentralbl. Bakteriol. Parasitenkd. Infektionskr. Hyg.Abt. 1, Orig. Reihe A191 486–507.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium adolescentis*		Dairy	Rabiu, B.A. (2001). Synthesis and fermentation properties of novel galacto-oligosaccharides by beta-galactosidases from Bifidobacterium species. Appl Environ Microbiol. 67, 2526-30.	ATCC 15703	Reuter, G. (1963). Vergleichende Untersuchunge über die Bifidus-Flora im Säuglings- und Erwachsenenstuhl. Zentralbl. Bakteriol. Parasitenkd. Infektionskr. Hyg. Abt. 1, Orig. Reihe A191 486–507.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *animalis*	Dairy	Biavati, B., Mattarelli, P., Crociani, F. (1992). Identification of bifidobacteria from fermented milk products. Microbiologica 15, 7-13.	ATCC 25527	Masco, L., Ventura, M., Zink, R., Huys, G., Swings, J. (2004). Polyphasic taxonomic analysis of Bifidobacterium animalis and Bifidobacterium lactis reveals relatedness at the subspecies level: reclassification of Bifidobacterium animalis as Bifidobacterium animalis subsp. animalis subsp. nov. and Bifidobacterium lactis as Bifidobacterium animalis subsp. lactis subsp. nov. Int J Syst Evol Microbiol 2004; 54:1137-1143.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *lactis*	Dairy	Biavati, B., Mattarelli, P., Crociani, F. (1992). Identification of bifidobacteria from fermented milk products. Microbiologica 15, 7-13.	DSM 10140	Meile, L., Ludwig, W., Rueger, U., Gut, C., Kaufmann, P., Dasen, G., Wenger, S., Teuber, M. (1997). Bifidobacterium lactis sp.nov., a moderately oxygen tolerant species isolated from fermented milk. Syst. Appl. Microbiol. 20, 57–64.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *lactis*	Alcoholic Beverages	Sohrabvandi, S., Mousavi, S.M., Razavi, S.H., Shaheed Behesti. (2010). Viability of probiotic bacteria in low alcohol and non-alcoholic beer during refrigerated storage. 93, 104-108.	DSM 10140	Meile, L., Ludwig, W., Rueger, U., Gut, C., Kaufmann, P., Dasen, G., Wenger, S., Teuber, M. (1997). Bifidobacterium lactis sp.nov., a moderately oxygen tolerant species isolated from fermented milk. Syst. Appl. Microbiol. 20, 57–64.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *lactis*	Plant Based	Buruleanu, C., Nicolescu, C., Avram, D., Manea, I., Bratu, M. (2012). Effects of yeast extract and different amino acids on the dynamics of some components in cabbage juice during fermentation with Bifidobacterium lactis BB-12. Food Science & Biotechnology, 21, 691-699.	DSM 10140	Meile, L., Ludwig, W., Rueger, U., Gut, C., Kaufmann, P., Dasen, G., Wenger, S., Teuber, M. (1997). Bifidobacterium lactis sp.nov., a moderately oxygen tolerant species isolated from fermented milk. Syst. Appl. Microbiol. 20, 57–64.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *lactis*	Plant Based	Guney, D., Güngörmüşler, M. (2020). Development and Comparative Evaluation of a Novel Fermented Juice Mixture with Probiotic Strains of Lactic Acid Bacteria and Bifidobacteria Probiotics Antimicr Pept doi: 10.1007/s12602-020-09710-2	DSM 10140	Meile, L., Ludwig, W., Rueger, U., Gut, C., Kaufmann, P., Dasen, G., Wenger, S., Teuber, M. (1997). Bifidobacterium lactis sp.nov., a moderately oxygen tolerant species isolated from fermented milk. Syst. Appl. Microbiol. 20, 57–64.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium animalis*	*Bifidobacterium animalis* subsp. *lactis*	Plant Based	Pavunc, A.P., Penava, L., Ranilović, J., Novak Banić, M., Butorac, K., Petrović, E., Mihaljević-Herman, V., Bendelja, K., Mlakar, A.S., Durgo, K., Kos, B., Šušković, J. (2019). Influence of Dehydrated Wheat/Rice Cereal Matrices on Probiotic Activity of Bifidobacterium animalis ssp. lactis BB-12®. Food Technol. Biotechnol. 57, 147-158. https://doi.org/10.17113/ftb.57.02.19.6142	DSM 10140	Meile, L., Ludwig, W., Rueger, U., Gut, C., Kaufmann, P., Dasen, G., Wenger, S., Teuber, M. (1997). Bifidobacterium lactis sp.nov., a moderately oxygen tolerant species isolated from fermented milk. Syst. Appl. Microbiol. 20, 57–64.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium bifidum*		Dairy	Ventling, B.L., Mistry, V.V. (1993). Growth characteristics of bifidobacteria in ultrafiltered milk. J Dairy Sci. 76, 962-71.	ATCC 29521	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium bifidum*		Seafood	Rodpai, R., Sanpool, O., Thanchomnang, T., Wangwiwatsin, A., Sadaow, L., Phupiewkham, W., Boonroumkaew, P., Intapan, P. M., Maleewong, W. (2021). Investigating the microbiota of fermented fish products (Pla-ra) from different communities of northeastern Thailand. PLOS ONE. 16(1):e0245227	ATCC 29521	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium bifidum*		Plant Based	Puri, A., Mir, S.R., Panda, B.R. (2015). Effect of sequential bio-processing conditions on the content and composition of vitamin K2 and isoflavones in fermented soy food. J Food Sci Technol. 52(12): 8228–8235.	ATCC 29521	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium breve*		Dairy	Reuter, G. (1990). Bifidobacteria Cultures as Components of Yoghurt-Like Products Bifidobacteria Microflora 9 (2), 107-118	ATCC 15700	Reuter, G. (1963). Vergleichende Untersuchunge über die Bifidus-Flora im Säuglings- und Erwachsenenstuhl. Zentralbl. Bakteriol. Parasitenkd. Infektionskr. Hyg. Abt. 1, Orig. Reihe A191 486–507.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium breve*		Plant Based	Scalabrini, P., Rossi, M., Spettoli, P., Matteuzzi, D. (1998). Characterization of Bifidobacterium strains for use in soymilk fermentation. Int J Food Microbiol 39(3):213-219	ATCC 15700	Reuter, G. (1963). Vergleichende Untersuchunge über die Bifidus-Flora im Säuglings- und Erwachsenenstuhl. Zentralbl. Bakteriol. Parasitenkd. Infektionskr. Hyg. Abt. 1, Orig. Reihe A191 486–507.
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium longum*	*Bifidobacterium longum* subsp. *infantis*	Dairy	Daigle, A., Roy, D., Belanger, G., Vuilemard, J.C. (1999). Production of probiotic cheese (cheddar-like cheese) using enriched cream fermented by Bifidobacterium infantis. J Dairy Sci. 82(6):1081-91.	ATCC 15697	Mattarelli, P., Bonaparte, C., Pot, B., Biavati, B. (2008). Proposal to reclassify the three biotypes of Bifidobacterium longum as three subspecies: Bifidobacterium longum subsp. longum subsp. nov., Bifidobacterium longum subsp. infantis comb. nov. and Bifidobacterium longum subsp. suis comb. nov. Int J Syst Evol Microbiol. 58(Pt 4):767-72
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium longum*	*Bifidobacterium longum* subsp. *longum*	Dairy	Anaerobe. (2012). Feb;18(1):14-8. doi: 10.1016/j.anaerobe. 2011.11.004. Epub 2011 Nov 26. Benef Microbes. 2016 Sep;7(4):473-84. doi: 10.3920/BM2015.0173. Epub 2016 May 2.	ATCC 15707	Mattarelli, P., Bonaparte, C., Pot, B., Biavati, B. (2008). Proposal to reclassify the three biotypes of Bifidobacterium longum as three subspecies: Bifidobacterium longum subsp. longum subsp. nov., Bifidobacterium longum subsp. infantis comb. nov. and Bifidobacterium longum subsp. suis comb. nov. Int J Syst Evol Microbiol. 58(Pt 4):767-72
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium pseudolongum*		Dairy	Rabiu, B.A. (2001). Synthesis and fermentation properties of novel galacto-oligosaccharides by beta-galactosidases from Bifidobacterium species. Appl Environ Microbiol. 67, 2526-30.	ATCC 25526	Nouioui, I., Carro, L., García-López, L., Meier-Kolthoff, J.P., Woyke, T. et al. (2007). Genome-based taxonomic classication of the phylum Actinobacteria. Front Microbiol 2007;2018:9
Monera	*Actinobacteria*	*Bifidobacteriaceae*	*Bifidobacterium*	*Bifidobacterium psychraerophilum*		Dairy	Hsieh, H.H., Wang, S-Y., Chen, T.-L., Huang, Y.-L., Chen, M.-J. (2012). Effects of cow's and goat's milk as fermentation media on the microbial ecology of sugary kefir grains. Int J Food Microbiol. 157(1): 73-81.	DSM 22366	Simpson, P.J., Ross, R.P., Fitzgerald, G.F., Stanton, C. (2004). Bifidobacterium psychraerophilum sp. nov. and Aeriscardovia aeriphila gen. nov., sp. nov., isolated from a porcine caecum. Int J Syst Evol Microbiol. 54: 401-406.
Monera	*Actinobacteria*	*Brevibacteriaceae*	*Brevibacterium*	*Brevibacterium antiquum*		Dairy	Ozturkoglu Budak, S.O., Figge, M.J., Houbraken, J., de Vries, R.P. (2016). The diversity and evolution of microbiota in traditional Turkish Divle Cave cheese during ripening. Int. Dairy J. 58, 50–54	LMG 22206	Gavrish, E. Yu, Krauzova, V.I., Potekhina, N.V., Karasev, S.G., Plotnikova E.G., Altyntseva O.V., Korosteleva, L.A. and Evtushenko L.I. (2004). Three New Species of Brevibacteria, Brevibacterium antiquum sp. nov., Brevibacterium aurantiacum sp. nov., and Brevibacterium permense sp. nov. Microbiology (English translation of Mikrobiologiya) 73,176-183.
Monera	*Actinobacteria*	*Brevibacteriaceae*	*Brevibacterium*	*Brevibacterium aurantiacum*		Dairy	Leclercq-Perlat, M.N., Corrieu, G., Spinnler, H.E. (2007). Controlled production of camembert-type cheeses: part III role of the ripening microflora on free fatty acid concentrations. J Dairy Res. 74, 218-25.	ATCC 9175	Gavrish, E.Yu., Krauzova, V.I., Potekhina, N.V., Karasev, S.G., Plotnikova, E.G., Altyntseva, O.V., Korosteleva, L.A., Evtushenko, L.I. (2004). Three new species of brevibacteria, Brevibacterium antiquum sp. nov., Brevibacterium aurantiacum sp. nov., and Brevibacterium permense sp. nov. Microbiology (English translation of Mikrobiologiya) 73, 176–183.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Brevibacteriaceae*	*Brevibacterium*	*Brevibacterium casei*		Dairy	Piton, C., Fontanier, C. (1990). Caractérisation d'une collection de souches de bactéries corynéformes de la morge du gruyère de Comté. Lait 70, 383·398	ATCC 35513	Collins, M.D., Farrow, J.A.E., Goodfellow, M., Minnikin, D.E. (1983). Brevibacterium casei sp.nov. and Brevibacterium epidermidis sp.nov. Systematic and Applied Microbiology 4, 388-395.
Monera	*Actinobacteria*	*Brevibacteriaceae*	*Brevibacterium*	*Brevibacterium iodinum*		Dairy	International Journal of Food Microbiology 47 (1999). 89–97. Analysis of the bacterial surface ripening flora of German and French smeared cheeses with respect to their anti-listerial potential. Markus C. Carnio, Ilka Eppert, Siegfried Scherer	ATCC 49514	Collins, M.D., Jones, D., Keddie, R.M., Sneath, P.H.A. (1980). Reclassification of Chromobacterium iodinum (Davis) in a redefined genus Brevibacterium (Breed) as Brevibacterium iodinum nom. rev.; comb. nov. J. Gen. Microbiol., 1980, 120, 1-10.
Monera	*Actinobacteria*	*Brevibacteriaceae*	*Brevibacterium*	*Brevibacterium linens*		Dairy	Albert, J.O., Long, H.F., Hammer, B.W. (1944). Classification of the organisms important in dairy products. IV. Bacterium linens. Iowa State Coll. Agr. Expt. Sta. Bull.,No. 328.	DSM 20425	Breed, R.S. (1953). The Brevibacteriaceae fam. nov. of order Eubacteriales. Riassunti delle Communicazione VI. Congresso Internazionale di Microbiologia, Roma; 1:13-14.
Monera	*Actinobacteria*	*Corynebacteriaceae*	*Corynebacterium*	*Corynebacterium ammoniagenes*		Dairy	Eliskases-Lechner, F., Ginzinger, W. (1995). The bacterial flora of surface-ripened cheeses with special regard to coryneforms. Le Lait, INRA Editions, 75 (6), pp.571-584.	ATCC 6871	Collins, M.D. (1987). Transfer of Brevibacterium ammoniagenes (Cooke and Keith) to the genus Corynebacterium, as Corynebacterium ammoniagenes comb. nov. Int. J. Syst. Bacteriol. 37, 442–443.
Monera	*Actinobacteria*	*Corynebacteriaceae*	*Corynebacterium*	*Corynebacterium casei*		Dairy	Bockelmann, W., Willems, K.P., Neve, H., Heller, K.H. (2005). Cultures for the ripening of smear cheeses. International Dairy Journal 15, 719-732.	DSM 44701	Brennan, N.M., Brown, R., Goodfellow, M., Ward, A.C., Beresford, T.P., Simpson, P.J., Fox, P.F., Cogan, T.M. (2001). Corynebacterium mooreparkense sp. nov. and Corynebacterium casei sp. nov., isolated from the surface of a smear-ripened cheese. Int. J. Syst. Evol. Microbiol. 51, 843–852.
Monera	*Actinobacteria*	*Corynebacteriaceae*	*Corynebacterium*	*Corynebacterium variabile*		Dairy	Bockelmann, W., Willems, K.P., Neve, H., Heller, K.H. (2005). Cultures for the ripening of smear cheeses. International Dairy Journal 15, 719-732.	ATCC 15753	Collins MD. (1987). Transfer of Arthrobacter variabilis (Müller) to the genus Corynebacterium, as Corynebacterium variabilis comb. nov. Int. J. Syst. Bacteriol. 1987; 37:287-288.
Monera	*Actinobacteria*	*Corynebacteriaceae*	*Corynebacterium*	*Microbacterium flavum*		Dairy	Brennan, N.M., Ward, A.C., Beresford, T.P., Fox, P.F., Goodfellow, M., Cogan, T.M. (2002). Biodiversity of the Bacterial Flora on the Surface of a Smear Cheese Appl. Environ. Microbiol. 68, 820-830.	ATCC 10340	Barksdale, L., Lanéelle, M.A., Pollice, M.C., Asselineau, J., Welby, M., Norgard, M.V. (1979). Biological and chemical basis for the reclassification of Microbacterium flavum Orla-Jensen as Corynebacterium flavescens nom. nov. Int. J. Syst. Bacteriol. 29, 222–233.
Monera	*Actinobacteria*	*Dermabacteraceae*	*Brachybacterium*	*Brachybacterium alimentarium*		Dairy	Schubert, K., Ludwig, W., Springer, N., Kroppenstedt, R.M., Accolas, J.P., Fiedler, F. (1996). Two coryneform bacteria isolated from the surface of French Gruyère and Beaufort cheeses of the genus brachybacterium: Brachybacterium alimentarium sp. nov. and Bracybacterium tyrofermentans sp. nov. Int J Syst Bacteriol. 46, 81-7.	ATCC 700067	Schubert, K., Ludwig, W., Springer, N., Kroppenstedt, R.M., Accolas, J.P., Fiedler, F. (1996). Two coryneform bacteria isolated from the surface of French Gruyère and Beaufort cheeses of the genus brachybacterium: Brachybacterium alimentarium sp. nov. and Bracybacterium tyrofermentans sp. nov. Int J Syst Bacteriol. 46, 81-7.
Monera	*Actinobacteria*	*Dermabacteraceae*	*Brachybacterium*	*Brachybacterium nesterenkovii*		Dairy	Gvozdyak, O.R., Nogina, T.M., Schumann, P. (1992). Taxonomic study of the genus Brachybacterium: Brachybacterium nesterenkovii sp. nov. Int. J. Syst. Bacteriol., 1992, 42, 74-78.	DSM 9573	Gvozdyak, O.R., Nogina, T.M., Schumann, P. (1992). Taxonomic study of the genus Brachybacterium: Brachybacterium nesterenkovii sp. nov. Int. J. Syst. Bacteriol., 1992, 42, 74-78.
Monera	*Actinobacteria*	*Dermabacteraceae*	*Brachybacterium*	*Brachybacterium paraconglomeratum*		Dairy	Callon, C., Duthoit, F., Delbes, C., Ferrand, M., Le Frileux, Y., De Cremoux, R., Montel, M.C. (2007). Stability of microbial communities in goat milk during a lactation year: Molecular approaches. 2007. Syst. Appl. Microbiol. 30,547-560	ATCC 51843	Takeuchi, M., Fang, C.X. and Yokota, A. (1995). Taxonomic study of the genus Brachybacterium: proposal of Brachybacterium conglomeratum sp. nov., nom. rev., Brachybacterium paraconglomeratum sp. nov., and Brachybacterium rhamnosum sp. nov. Int. J. Syst. Bacteriol. 45, 160-168.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Dermabacteraceae*	*Brachybacterium*	*Brachybacterium tyrofermentans*		Dairy	Schubert, K., Ludwig, W., Springer, N., Kroppenstedt, R.M., Accolas, J.P., Fiedler, F. (1996). Two coryneform bacteria isolated from the surface of French Gruyère and Beaufort cheeses of the genus brachybacterium: Brachybacterium alimentarium sp. nov. and Bracybacterium tyrofermentans sp. nov. Int J Syst Bacteriol. 46, 81-7.	ATCC 700068	Schubert, K., Ludwig, W., Springer, N., Kroppenstedt, R.M., Accolas, J.P., Fiedler, F. (1996). Two coryneform bacteria isolated from the surface of French Gruyère and Beaufort cheeses of the genus brachybacterium: Brachybacterium alimentarium sp. nov. and Bracybacterium tyrofermentans sp. nov. Int J Syst Bacteriol. 46, 81-7.
Monera	*Actinobacteria*	*Microbacteriaceae*	*Agrococcus*	*Agrococcus casei*		Dairy	Roth, E., Miescher Schwenninger, S., Hasler, M., Eugster-Meier, E., Lacroix, C. (2010). Population dynamics of two antilisterial cheese surface consortia revealed by temporal temperature gradient gel electrophoresis. BMC Microbiol. 10,74.	DSM 18061	Bora, N., Vancanneyt, M., Gelsomino, R., Swings, J., Brennan, N., Cogan, T.M., Larpin, S., Desmasures, N., Lechner, F.E., Kroppenstedt, R.M., Ward, A.C., Goodfellow, M. (2007). Agrococcus casei sp. nov., isolated from the surfaces of smear-ripened cheeses. Int J Syst Evol Microbiol. 57, 92-97.
Monera	*Actinobacteria*	*Microbacteriaceae*	*Leucobacter*	*Leucobacter komagatae*		Dairy	Mounier, J., Monnet, C., Jacques, N., Antoinette, A., Irlinger, F. (2009). Assessment of the microbial diversity at the surface of Livarot cheese using culture-dependent and independent approaches. Int J Food Microbiol. 133,31-7.	DSM 8803	Takeuchi, M., Weiss, N., Schumann, P. and Yokota, A. (1996). Leucobacter komagatae gen. nov., sp. nov., a new aerobic gram-positive, nonsporulating rod with 2,4-diaminobutyric acid in the cell wall. Int. J. Syst. Bacteriol. 46,967-971.
Monera	*Actinobacteria*	*Microbacteriaceae*	*Microbacterium*	*Microbacterium foliorum*		Dairy	Deetae, P., Bonnarme, P., Spinnler, H.E., Helinck, S. (2007). Production of volatile aroma compounds by bacterial strains isolated from different surface-ripened French cheeses. Appl Microbiol Biotechnol. 76,1161-71.	DSM 12966	Behrendt, U., Ulrich, A. and Schumann, P. (2001). Description of Microbacterium foliorum sp. nov. and Microbacterium phyllosphaerae sp. nov., isolated from the phyllospheres of grasses and the surface litter after mulching the sward, and reclassification of Aureobacterium resistens (Funke et al. 1998) as Microbacterium resistens comb. nov. Int. J. Syst. Evol. Microbiol. 51,1267-1276.
Monera	*Actinobacteria*	*Microbacteriaceae*	*Microbacterium*	*Microbacterium gubbeenense*		Dairy	Cogan, T.M., Goerges, S., Gelsomino, R., Larpin, S., Hohenegger, M., Bora, N., Jamet, E., Rea, M.C., Mounier, J., Vancanneyt, M., Guéguen, M., Desmasures, N., Swings, J., Goodfellow, M., Ward, A.C., Sebastiani, H., Irlinger, F., Chamba, J.F., Beduhn, R., Scherer, S. (2014). Biodiversity of the Surface Microbial Consortia from Limburger, Reblochon, Livarot, Tilsit, and Gubbeen Cheeses. Microbiol Spectr. 2014 Feb;2(1):CM-0010-2012. doi: 10.1128/microbiolspec.CM-0010-2012. PMID: 26082119. Mounier, J., Monnet, C., Jacques, N., Antoinette, A., Irlinger, F. (2009). Assessment of the microbial diversity at the surface of Livarot cheese using culture-dependent and independent approaches. Int J Food Microbiol. 2009 Jul 31;133(1-2):31-7. doi: 10.1016/j.ijfoodmicro.2009.04.020. Epub 2009 Apr 24. PMID: 19481828	DSM 15944	Brennan, N.M., Brown, R., Goodfellow, M., Ward, A.C., Beresford, T.P., Vancanneyt, M., Cogan, T.M., Fox, P.F. (2001). Microbacterium gubbeenense sp. nov., from the surface of a smear-ripened cheese. International Journal of Systematic and Evolutionary Microbiology 51, 1969-1976.
Monera	*Actinobacteria*	*Micrococcaceae*	*Arthrobacter*	*Arthrobacter crystallopoietes*		Dairy	Carnio, M.C., Eppert, I., Scherer, S. (1999). Analysis of the bacterial surface ripening flora of German and French smeared cheeses with respect to their anti-listerial potential International Journal of Food Microbiology 47 89–97	ATCC 15481	Ensign, J.C., Rittenberg, S.C. (1963). A crystalline pigment produced from 2-hydroxypyridine by Arthrobacter crystallopoietes n. sp. Archiv für Mikrobiologie, 1963, 47, 137-153.
Monera	*Actinobacteria*	*Micrococcaceae*	*Arthrobacter*	*Arthrobacter globiformis*		Dairy	Eliskases-Lechner, F., Ginzinger, W. (1995). The bacterial flora of surface-ripened cheeses with special regard to coryneforms. Le Lait, INRA Editions, 1995, 75 (6), pp.571-584.	ATCC 8010	Conn, H.J. (1928). A type of bacteria abundant in productive soils, but apparently lacking in certain soils of low productivity. New York State Agricultural Experimental Station Technical Bulletin No. 138:3–26.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Micrococcaceae*	*Glutamicibacter*	*Glutamicibacter arilaitensis*		Dairy	Mounier, J., Gelsomino, R., Goerges, S., Vancanneyt, M., Vandemeulebroecke, K., Hoste, B., Scherer, S., Swings, J., Fitzgerald, G.F., Cogan, T.M. (2005). Surface microflora of four smear-ripened cheeses. Appl Environ Microbiol. 71, 6489-500.	DSM 16368	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int. J. Syst. Evol. Microbiol., 66, 9-37.
Monera	*Actinobacteria*	*Micrococcaceae*	*Glutamicibacter*	*Glutamicibacter bergerei*		Dairy	Irlinger, F., Bimet, F., Delettre, J., Lefevre, M., Grimont, P.A.D. (2005). Arthrobacter bergerei sp. nov. and Arthrobacter arilaitensis sp. nov., novel coryneform species isolated from the surfaces of cheeses. Int. J. Syst. Evol. Microbiol. 55, 457-462.	DSM 16367	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int. J. Syst. Evol. Microbiol., 66, 9-37.
Monera	*Actinobacteria*	*Micrococcaceae*	*Glutamicibacter*	*Glutamicibacter nicotianae*		Dairy	Smacchi, E., Gobbetti, M.,Lanciotti, R., Fox, P.F. (1999). Purification and characterization of an extracellular proline imin peptidase from Arthrobana, FEMS Microbiol Lett. 178(1):191-7. Smacchi, E., Fox, P.F., Gobbetti, M. (1999). Purification and characterization of two extracellular proteinases from Arthrobacter nicotianae 9458. FEMS Microbiol Lett. 170, 327-33.	ATCC 14929	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int. J. Syst. Evol. Microbiol., 66, 9-37.
Monera	*Actinobacteria*	*Micrococcaceae*	*Glutamicibacter*	*Glutamicibacter protophormiae*		Dairy	Carnio, M.C., Eppert, I., Scherer, S. (1999). Analysis of the bacterial surface ripening flora of German and French smeared cheeses with respect to their anti-listerial potential International Journal of Food Microbiology 47 89–97	ATCC 19271	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int J Syst Evol Microbiol 2016; 66:9-37.
Monera	*Actinobacteria*	*Micrococcaceae*	*Kocuria*	*Kocuria rhizophila*		Dairy	El-Baradei, G., Delacroix-Buchet, A., Ogier, J.C. (2007). Biodiversity of bacterial ecosystems in traditional Egyptian Domiati cheese. Appl Environ Microbiol. 73, 1248-55.	DSM 11926	Kovács, G., Burghardt, J., Pradella, S., Schumann, P., Stackebrandt, E., Màrialigeti, K. (1999). Kocuria palustris sp. nov. and Kocuria rhizophila sp. nov., isolated from the rhizoplane of the narrow-leaved cattail (Typha angustifolia). Int J Syst Bacteriol. 49, 167-73.
Monera	*Actinobacteria*	*Micrococcaceae*	*Kocuria*	*Kocuria varians*		Dairy	O'Mahony, T., Rekhif, N., Cavadini, C., Fitzgerald, G.F. (2001). The application of a fermented food ingredient containing 'variacin', a novel antimicrobial produced by Kocuria varians, to control the growth of Bacillus cereus in chilled dairy products. J Appl Microbiol. 90, 106-14.	DSM 20033	Stackebrandt, E., Koch, C., Gvozdiak, O., Schumann, P. (1995). Taxonomic dissection of the genus Micrococcus: Kocuria gen. nov., Nesterenkonia gen. nov., Kytococcus gen. nov., Dermacoccus gen. nov., and Micrococcus Cohn 1872 gen. emend. Int. J. Syst. Bacteriol. 45, 682-692. ex Micrococcus varians Migula 1900 (Approved Lists 1980)

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Micrococcaceae*	*Micrococcus*	*Micrococcus luteus*		Dairy	Feng, Z., Huang, S., Ai, Z.W., Zhang, M., Zhai, S., Chen, X. (2016). Evaluation of autochthonous micrococcus strains as starter cultures for the production of Kedong sufu. J Appl Microbiol. 2016 Mar;120(3):671-83. doi: 10.1111/jam.13023. PMID: 26666740. Mounier, J., Gelsomino, R., Goerges, S., Vancanneyt, M., Vandemeulebroecke, K., Hoste, B., Scherer, S., Swings, J., Fitzgerald, G.F., Cogan, T.M. (2005). Surface microflora of four smear-ripened cheeses. Appl Environ Microbiol. 2005 Nov;71(11):6489-500. doi: 10.1128/AEM.71.11.6489-6500.2005. PMID: 16269673; PMCID: PMC1287636	ATCC 4698 DSM 20030	Wieser, M., Denner, E.B.M., Kampfer, P., Schumann, P., Tindall, B., Steiner, U., Vybiral, D., Lubitz, W., Maszenan, A.M., Patel, B.K.C., Seviour, R.J., Radax, C., Busse, H.J. (2002). Emended descriptions of the genus Micrococcus, Micrococcus luteus (Cohn 1872) and Micrococcus lylae (Kloos et al. 1974). Int. J. Syst. Evol. Microbiol.52, 629-637
Monera	*Actinobacteria*	*Micrococcaceae*	*Micrococcus*	*Micrococcus luteus*		Seafood	Anihouvi, V.B., Sakyi-Dawson, E., Ayernor, G.S., Hounhouigan, J.D. (2007). Microbiological changes in naturally fermented cassava fish (Pseudotolithus sp.) for lanhouin production. Int J Food Microbiol. 2007 May 10;116(2):287-91. doi: 10.1016/j.ijfoodmicro.2006.12.009. Epub 2007 Jan 12. PMID: 17291615.	ATCC 4698 DSM 20030	Wieser, M., Denner, E.B.M., Kampfer, P., Schumann, P., Tindall, B., Steiner, U., Vybiral, D., Lubitz, W., Maszenan, A.M., Patel, B.K.C., Seviour, R.J., Radax, C., Busse, H.J. (2002). Emended descriptions of the genus Micrococcus, Micrococcus luteus (Cohn 1872) and Micrococcus lylae (Kloos et al. 1974). Int. J. Syst. Evol. Microbiol.52, 629-637
Monera	*Actinobacteria*	*Micrococcaceae*	*Micrococcus*	*Micrococcus luteus*		Meat	Iacumin, L., Manzano, M., Comi, G. (2012). Catalase-positive cocci in fermented sausage: Variability due to different pork breeds, breeding systems and sausage production technology. Food Microbiol. 2012 Apr;29(2):178-86. doi: 10.1016/j.fm.2011.09.005. Epub 2011 Sep 22. PMID: 22202871.	ATCC 4698 DSM 20030	Wieser, M., Denner, E.B.M., Kampfer, P., Schumann, P., Tindall, B., Steiner, U., Vybiral, D., Lubitz, W., Maszenan, A.M., Patel, B.K.C., Seviour, R.J., Radax, C., Busse, H.J. (2002). Emended descriptions of the genus Micrococcus, Micrococcus luteus (Cohn 1872) and Micrococcus lylae (Kloos et al. 1974). Int. J. Syst. Evol. Microbiol.52, 629-637
Monera	*Actinobacteria*	*Micrococcaceae*	*Micrococcus*	*Micrococcus lylae*		Meat	García Fontán, M.C. (2007). Microbiological characteristics of androlla, a Spanish traditional pork sausage. Food Microbiol. 24, 52-8.	ATCC 27566 DSM 20315	Wieser, M., Denner, E.B.M., Kampfer, P., Schumann, P., Tindall, B., Steiner, U., Vybiral, D., Lubitz, W., Maszenan, A.M., Patel, B.K.C., Seviour, R.J., Radax, C., Busse, H.J. (2002). Emended descriptions of the genus Micrococcus, Micrococcus luteus (Cohn 1872) and Micrococcus lylae (Kloos et al. 1974). Int. J. Syst. Evol. Microbiol.52, 629-637
Monera	*Actinobacteria*	*Micrococcaceae*	*Paenarthrobacter*	*Paenarthrobacter aurescens*		Dairy	Carnio, M.C., Eppert, I., Scherer, S. (1999). Analysis of the bacterial surface ripening flora of German and French smeared cheeses with respect to their anti-listerial potential International Journal of Food Microbiology 47 89–97	ATCC 13344	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int J Syst Evol Microbiol 2016; 66:9-37.
Monera	*Actinobacteria*	*Micrococcaceae*	*Paenarthrobacter*	*Paenarthrobacter ilicis*		Dairy	Carnio, M.C., Eppert, I., Scherer, S. (1999). Analysis of the bacterial surface ripening flora of German and French smeared cheeses with respect to their anti-listerial potential International Journal of Food Microbiology 47 89–97	ATCC 14264	Busse, H.J. (2016). Review of the taxonomy of the genus Arthrobacter, emendation of the genus Arthrobacter sensu lato, proposal to reclassify selected species of the genus Arthrobacter in the novel genera Glutamicibacter gen. nov., Paeniglutamicibacter gen. nov., Pseudoglutamicibacter gen. nov., Paenarthrobacter gen. nov. and Pseudarthrobacter gen. nov., and emended description of Arthrobacter roseus. Int J Syst Evol Microbiol 2016; 66:9-37.
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Acidipropionibacterium*	*Acidipropionibacterium acidipropionici*		Dairy	Sherman, J.M. (1921). The cause of eyes and characteristic flavor of Emmental cheese. J. Bact. 6, 379-392.	ATCC 25562 DSM 4900	Orla-Jensen, S. (1909). Die Hauptlinien des natürlichen Bakteriensystems. Zb. Bakteriol., Abt. 2 22, 305-346.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Acidipropionibacterium*	*Acidipropionibacterium acidipropionici*		Plant Based	Warminska-Radyko, I., Laniewska-Trokenheim, L., Gerlich, J. (2006). Fermented multi-vegetable juices supplemented with Propionibacterium cell biomass / Fermentowane soki wielowarzywne suplementowane biomasa komorek Propionibacterium.Polish Journal of Food and Nutrition Sciences (Poland). 2006. v. 15/56(4) p. 433-436	ATCC 25562 DSM 4900	Orla-Jensen, S. (1909). Die Hauptlinien des natürlichen Bakteriensystems. Zb. Bakteriol., Abt. 2 22, 305-346.
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Acidipropionibacterium*	*Acidipropionibacterium jensenii*		Dairy	Britz, T.J., Riedel, K.H. (1994). Propionibacterium species diversity in Leerdammer cheese. Int J Food Microbiol. 1994 Jun;22(4):257-67. doi: 10.1016/0168-1605(94)90177-5. PMID: 7986677. Yee, A.L., Maillard, M.B., Roland, N., Chuat, V., Leclerc, A., Pogačić, T., Valence, F., Thierry, A. (2014). Great interspecies and intraspecies diversity of dairy propionibacteria in the production of cheese aroma compounds. Int J Food Microbiol. 2014 Nov 17;191:60-8. doi: 10.1016/j.ijfoodmicro.2014.09.001. Epub 2014 Sep 6. PMID: 25233451. Darilmaz, D.O., Beyatli, Y. (2012). Acid-bile, antibiotic resistance and inhibitory properties of propionibacteria isolated from Turkish traditional home-made cheeses. Anaerobe. 2012 Feb;18(1):122-7. doi: 10.1016/j.anaerobe.2011.10.002. Epub 2011 Oct 14. PMID: 22019987.	ATCC 4868 DSM 20535	Britz, T.J., Riedel, K.H. (1994). Propionibacterium species diversity in Leerdammer cheese. Int J Food Microbiol. 22, 257-67.
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Acidipropionibacterium*	*Acidipropionibacterium jensenii*		Plant Based	Van Niel, 1928. The genus Propionibacterium. J.W. Boisevain, Haarlem, the Netherlands. Warminska-Radyko, I., Laniewska-Trokenheim, L., Gerlich, J. (2006). Fermented multi-vegetable juices supplemented with Propionibacterium cell biomass / Fermentowane soki wielowarzywne suplementowane biomasa komorek Propionibacterium.Polish Journal of Food and Nutrition Sciences 2006. v. 15/56(4) p. 433-436	ATCC 4868 DSM 20535	Britz, T.J., Riedel, K.H. (1994). Propionibacterium species diversity in Leerdammer cheese. Int J Food Microbiol. 22, 257-67.
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Acidipropionibacterium*	*Acidipropionibacterium thoenii*		Dairy	Yee, A.L., Maillard, M.B., Roland, N., Chuat, V., Leclerc, A., Pogačić, T., Valence, F., Thierry, A. (2014). Great interspecies and intraspecies diversity of dairy propionibacteria in the production of cheese aroma compounds. Int J Food Microbiol. 2014 Nov 17;191:60-8. doi: 10.1016/j.ijfoodmicro.2014.09.001. Epub 2014 Sep 6. PMID: 25233451. Darilmaz, D.O., Beyatli, Y. (2012). Acid-bile, antibiotic resistance and inhibitory properties of propionibacteria isolated from Turkish traditional home-made cheeses. Anaerobe. 2012 Feb;18(1):122-7. doi: 10.1016/j.anaerobe.2011.10.002. Epub 2011 Oct 14. PMID: 22019987. Britz, T.J., Riedel, K.H. (1994). Propionibacterium species diversity in Leerdammer cheese. Int J Food Microbiol. 1994 Jun;22(4):257-67. doi: 10.1016/0168-1605(94)90177-5. PMID: 7986677	NCFB 568 DSM 20276 ATCC 4874	Britz, T.J., Riedel, K-H.J. (1991). A numerical taxonomic study of Propionibacterium strains from dairy sources. Journal of Applied Microbiology 71, 407–416.
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Propionibacterium*	*Propionibacterium freudenreichii*	*Propionibacterium freudenreichii* subsp. *freudenreichii*	Dairy	Rabah, H., Rosa do Carmo, F.L., Jan, G. (2017). Dairy Propionibacteria: Versatile Probiotics. Microorganisms. 2017 May 13;5(2):24. doi: 10.3390/microorganisms5020024. PMID: 28505101; PMCID: PMC5488095. Dherbécourt, J., Falentin, H., Canaan, S., Thierry, A. (2008). A genomic search approach to identify esterases in Propionibacterium freudenreichii involved in the formation of flavour in Emmental cheese. Microb Cell Fact. 2008 May 22;7:16. doi: 10.1186/1475-2859-7-16. PMID: 18498642; PMCID: PMC2442053 Darilmaz, D.O., Beyatli, Y. (2012). Acid-bile, antibiotic resistance and inhibitory properties of propionibacteria isolated from Turkish traditional home-made cheeses. Anaerobe. 2012 Feb;18(1):122-7. doi: 10.1016/j.anaerobe.2011.10.002. Epub 2011 Oct 14. PMID: 22019987	ATCC 6207 DSM 20271	Moore, W.E.C., Holdeman, L.V. (1974). Propionibacterium. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manual of Determinative Bacteriology, 8th ed. Williams & Wilkins. Baltimore, MD. 633–644.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Actinobacteria*	*Propionibacteriaceae*	*Propionibacterium*	*Propionibacterium freudenreichii*	*Propionibacterium freudenreichii* subsp.*shermanii*	Dairy	Rabah, H., Rosa do Carmo, F.L., Jan, G. (2017). Dairy Propionibacteria: Versatile Probiotics. Microorganisms. 2017 May 13;5(2):24. doi: 10.3390/microorganisms5020024. PMID: 28505101; PMCID: PMC5488095. Dherbécourt, J., Falentin, H., Canaan, S., Thierry, A. (2008). A genomic search approach to identify esterases in Propionibacterium freudenreichii involved in the formation of flavour in Emmental cheese. Microb Cell Fact. 2008 May 22;7:16. doi: 10.1186/1475-2859-7-16. PMID: 18498642; PMCID: PMC2442053	ATCC 9614 DSM 4902	Moore, W.E.C., Holdeman, L.V. (1974). Propionibacterium. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manual of Determinative Bacteriology, 8th ed. Williams & Wilkins. Baltimore, MD. 633–644.
Monera	*Actinobacteria*	*Streptomycetaceae*	*Streptomyces*	*Streptomyces griseus*	*Streptomyces griseus* subsp. *griseus*	Meat	Hammes, W.P., Knauf, H.J. (1994). Starter in the processing of meat products. Meat Science 36, 155-168. Candogan, K., Wardlaw, F.B., Acton, J.C. (2009). Effect of starter cultures on proteolytic changes during processing. Food Chemistry 116, 731-737.	ATCC 23345 - DSM 40226 - ATCC 11009 - ATCC 23882	Waksman, S.A., Henrici, A.T. (1943). The nomenclature and classification of the actinomycetes. J. Bacteriol. 46, 337–341.
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus amyloliquefaciens*		Seafood	Zaman, M.Z. (2011). Novel starter cultures to inhibit biogenic amines accumulation during fish sauce fermentation. Int J Food Microbiol 145(1):84-91.	ATCC 23350	Priest, F.G., Goodfellow, M., Shute, L.A., Berkeley, R.C.W. (1987). Bacillus amyloliquefaciens sp. nov., nom. Rev. Int J Syst Bacteriol 37, 69-71
Monera	*Firmicutes*	*Bacillaceae*	*Weizmannia*	*Weizmannia coagulans*		Plant Based	Schwan, R.F., Vanetti, M.C.D., Silva, D.O., Lopez, A., de Moraes, C.A. (1986). Characterization and distribution of aerobic, spore-forming bacteria from cacao fermentations in Bahia. J. Food Sci. 51:1583–1584.	ATCC 7050	Gupta, R.S., Patel, S., Saini, N., Chen, S. (2020). Robust demarcation of 17 distinct Bacillus species clades, proposed as novel Bacillaceae genera, by phylogenomics and comparative genomic analyses: description of Robertmurraya kyonggiensis sp. nov. and proposal for an emended genus Bacillus limiting it only to the members of the Subtilis and Cereus clades of species. Int J Syst Evol Microbiol. 2020 Nov;70(11):5753-5798. doi: 10.1099/ijsem.0.004475. Epub 2020 Oct 27. Erratum in: Int J Syst Evol Microbiol. 2020 Dec;70(12):6531-6533. PMID: 33112222.
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus licheniformis*		Alcoholic Beverages	Wang, P., Wu, Q., Jiang, X.J., Wang, Z.Q., Tang, J.L., Xu, Y. (2017). Bacillus licheniformis affects the microbial community and metabolic profile in the spontaneous fermentation of Daqu starter for Chinese liquor making[J]. International Journal of Food Microbiology,250. Meng, X., Wu, Q., Wang, L. (2015). Improving flavor metabolism of Saccharomyces cerevisiae by mixed culture with Bacillus licheniformis for Chinese Maotai-flavor liquor making[J]. J Ind Microbiol Biotechnol. 42: 1601-8.	ATCC 14580	Chester, F.D. (1901). A Manual of Determinative Bacteriology. The MacMillan Co., New York, 1901. Wang, L.T., Lee, F.L., Tai, C.J, et al. (2007). Comparison of gyrB gene sequences, 16S rRNA gene sequences and DNA-DNA hybridization in the Bacillus subtilis group[J]. International Journal of Systematic & Evolutionary Microbiology, 2007, 57(8):1846-1850.
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus licheniformis*		Plant Based	Hao, B.X., Song, L.I., Tian, H.X., Yue, M.A., Liu, H.X., Wang, C.L. (2018). Research Progress of Fermented Microbes in Pu-erh Tea[J]. Food Research and Development,39(08):203-206. (in Chinese) LI, C.C., Lv, J., Yang, R.J. (2012). Isolation and identification of thermophilic bacteria during the pile-fermentation of Pu'er tea[J]. Journal of Beijing University of Chemical Technology(Natural Science Edition), 39(02):74-78. (in Chinese)	ATCC 14580	Chester, F.D. (1901). A Manual of Determinative Bacteriology. The MacMillan Co., New York, 1901. Wang, L.T., Lee, F.L., Ta,i C.J. et al. (2007). Comparison of gyrB gene sequences, 16S rRNA gene sequences and DNA-DNA hybridization in the Bacillus subtilis group[J]. International Journal of Systematic & Evolutionary Microbiology, 2007, 57(8):1846-1850.
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus subtilis*		Plant Based	Nagami, Y., Tanaka, T. (1986). Molecular cloning and nucleotide sequence of a DNA fragment from Bacillus natto that enhances production of extracellular proteases and levansucrase in Bacillus subtilis. J Bacteriol. 166, 20-8.	ATCC 6051	Gibson, T., Gordon, R. (1974). Endospore-forming rods and cocci. Family I. Bacillacea, genus I. Bacillus Cohn, p. 529-550. In: Buchanan, R.E., Gibsons, N.E. (Eds.), Bergey's manual of determinative bacteriology, 8th ed. The Williams & Wilkins Co., Baltimore.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus subtilis*		Meat	Wang, J., Fung, D.Y. (1996). Alkaline-fermented foods: a review with emphasis on pidan fermentation. Crit Rev Microbiol. 22, 101-38	ATCC 6051	Gibson, T., Gordon, R. (1974). Endospore-forming rods and cocci. Family I. Bacillacea, genus I. Bacillus Cohn, p. 529-550. In: Buchanan, R.E., Gibsons, N.E. (Eds.), Bergey's manual of determinative bacteriology, 8th ed. The Williams & Wilkins Co., Baltimore.
Monera	*Firmicutes*	*Bacillaceae*	*Bacillus*	*Bacillus subtilis*		Dairy	Ottogalli, G., Galli, A., Resmini, P., Volonterio, G. (1973). Composizione microbiologica, chimica ed ultrastruttura dei granuli di Kefir. Ann. Microbiol., 23, 109.	ATCC 6051	Gibson, T., Gordon, R. (1974). Endospore-forming rods and cocci. Family I. Bacillacea, genus I. Bacillus Cohn, p. 529-550. In: Buchanan, R.E., Gibsons, N.E. (Eds.), Bergey's manual of determinative bacteriology, 8th ed. The Williams & Wilkins Co., Baltimore.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium divergens*		Dairy	Hammes, W.P., Hertel, C. (2009). Carnobacterium. In: De Vos, P., Schleifer, K-H., Ludwig, W., Whitman, W.B., Garrity, G., Jones, D., Rainey, F., Krieg, N.R. (Eds.), Bergey's Manual of Systematic Bacteriology, Volume 3, The Firmicutes; p.p. 549 - 557, Springer	ATCC 35677	Collins, M.D., Farrow, J.A.E., Phillips, B.A., Feresu, S., Jones, D. (1987). Classification of Lactobacillus divergens, Lactobacillus piscicola, and some catalase-negative, asporogenous, rod-shaped bacteria from poultry in a new genus, Carnobacterium. Int. J. Syst. Bacteriol. 37, 310-316.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium divergens*		Meat	Leisner, J.J., Laursen, B.G., Prevost, H., Drider, D., Dalgaard, P. (2007). Carnobacterium: positive and negative ejects in the environment and in foods. FEMS Microbiol Rev. 114:168–186	ATCC 35677	Collins, M.D., Farrow, J.A.E., Phillips, B.A., Feresu, S., Jones, D. (1987). Classification of Lactobacillus divergens, Lactobacillus piscicola, and some catalase-negative, asporogenous, rod-shaped bacteria from poultry in a new genus, Carnobacterium. Int. J. Syst. Bacteriol. 37, 310-316.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium divergens*		Seafood	Leisner, J.J., Laursen, B.G., Prevost, H., Drider, D., Dalgaard, P. (2007). Carnobacterium: positive and negative ejects in the environment and in foods. FEMS Microbiol Rev. 114:168–186	ATCC 35677	Collins, M.D., Farrow, J.A.E., Phillips, B.A., Feresu, S., Jones, D. (1987). Classification of Lactobacillus divergens, Lactobacillus piscicola, and some catalase-negative, asporogenous, rod-shaped bacteria from poultry in a new genus, Carnobacterium. Int. J. Syst. Bacteriol. 37, 310-316.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium maltaromaticum*		Dairy	Afzal, M.I., Jacquet, T., Delaunay, S., Borges, F., Millière, J.B., Revol-Junelles, A.M., Cailliez-Grimal, C. (2010). Carnobacterium maltaromaticum: identification, isolation tools, ecology and technological aspects in dairy products. Food Microbiol. 27, 573-9.	ATCC 27865	Mora, D., Scarpellini, M., Franzetti, L., Colombo, S., Galli, A. (2003). Reclassification of Lactobacillus maltaromicus (Miller et al. 1974) DSM 20342T and DSM 20344 and Carnobacterium piscicola (Collins et al. 1987) DSM 20730T and DSM 20722 as Carnobacterium maltaromaticum comb. nov. Int. J. Syst. Evol. Microbiol. 53, 675-678.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium mobile*		Dairy	Retureau, E., Callon, C., Didienne, R., Montel, MC. (2010). Is microbial diversity an asset for inhibiting Listeria monocytogenes in raw milk cheeses? Dairy Science & Technology. 90, 375-398.	ATCC 49516	Collins M.D., Farrow J.A.E., Phillips B.A., Feresu S. and Jones D. (1987). Classification of Lactobacillus divergens, Lactobacillus piscicola, and some catalase-negative, asporogenous, rod-shaped bacteria from poultry in a new genus, Carnobacterium. Int. J. Syst. Bacteriol. 37,310-316.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium divergens*		Plant Based	Nyanga, L.K., Nout, M.J.R., Gadaga, T.H., Theelen, B., Boekhout, T., Zwietering, M.H. (2007). Yeasts and lactic acid bacteria microbiota from masau (Ziziphus mauritiana) fruits and their fermented fruit pulp in Zimbabwe. Int J Food Microbiol. 120: 159-66.	ATCC 35677	Collins, M.D., Farrow, J.A.E., Phillips, B.A., Feresu, S., Jones, D. (1987). Classification of Lactobacillus divergens, Lactobacillus piscicola, and some catalase-negative, asporogenous, rod-shaped bacteria from poultry in a new genus, Carnobacterium. Int. J. Syst. Bacteriol. 37, 310-316.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium maltaromaticum*		Seafood	Pilet, M-F., Dousset, X., Barré, R., Novel, G., Desmazeaud, M., Piard, J-C. (1995). Evidence for Two Bacteriocins Produced by Carnobacterium piscicola and Carnobacterium divergens Isolated from Fish and Active Against Listeria monocytogenes. J Food Prot. 58: 256-262.	ATCC 27865	Mora, D., Scarpellini, M., Franzetti, L., Colombo, S., Galli, A. (2003). Reclassification of Lactobacillus maltaromicus (Miller et al. 1974) DSM 20342T and DSM 20344 and Carnobacterium piscicola (Collins et al. 1987) DSM 20730T and DSM 20722 as Carnobacterium maltaromaticum comb. nov. Int. J. Syst. Evol. Microbiol. 53, 675-678.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Carnobacteriaceae*	*Carnobacterium*	*Carnobacterium maltaromaticum*		Meat	Ahn, C., Stiles, M.E. (1990). Plasmid-associated bacteriocin production by a strain of Carnobacterium piscicola from meat. Appl Environ Microbiol. 56: 2503-10.	ATCC 27865	Mora, D., Scarpellini, M., Franzetti, L., Colombo, S., Galli, A. (2003). Reclassification of Lactobacillus maltaromicus (Miller et al. 1974) DSM 20342T and DSM 20344 and Carnobacterium piscicola (Collins et al. 1987) DSM 20730T and DSM 20722 as Carnobacterium maltaromaticum comb. nov. Int. J. Syst. Evol. Microbiol. 53, 675-678.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Marinilactibacillus*	*Marinilactibacillus psychrotolerans*		Dairy	Ishikawa, M., Kodama, K., Yasuda, H., Okamoto-Kainuma, A., Koizumi, K., Yamasato, K. (2007). Presence of halophilic and alkaliphilic lactic acid bacteria in various cheeses. Lett Appl Microbiol. 44,308-13.	NCIMB 13873 IAM 14980 DSMZ 19582 NBRC 100002	Ishikawa, M., Nakajima, K., Yanagi, M., Yamamoto, Y. and Yamasato, K. (2003). Marinilactibacillus psychrotolerans gen. nov., sp. nov., a halophilic and alkaliphilic marine lactic acid bacterium isolated from marine organisms in temperate and subtropical areas of Japan. Int. J. Syst. Evol. Microbiol. 53,711-720.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Marinilactibacillus*	*Marinilactibacillus psychrotolerans*		Seafood	Belleggia, L., Aquilanti, L., Ferrocino, I., Milanović, V., Garofalo, C., Clementi, F., Cocolin, L., Mozzon, M., Foligni, R., Haouet, M.N., Scuota, S., Framboas, M., Osimani, A. (2020). Discovering microbiota and volatile compounds of surströmming, the traditional Swedish sour herring. Food Microbiol. 2020 Oct;91:103503. doi: 10.1016/j.fm.2020.103503. Epub 2020 Apr 9. PMID: 32539969	NCIMB 13873 IAM 14980 DSMZ 19582 NBRC 100002	Ishikawa, M., Nakajima, K., Yanagi, M., Yamamoto, Y. and Yamasato, K. (2003). Marinilactibacillus psychrotolerans gen. nov., sp. nov., a halophilic and alkaliphilic marine lactic acid bacterium isolated from marine organisms in temperate and subtropical areas of Japan. Int. J. Syst. Evol. Microbiol. 53,711-720.
Monera	*Firmicutes*	*Carnobacteriaceae*	*Marinilactibacillus*	*Marinilactibacillus psychrotolerans*		Plant Based	Lucena-Padrós, H., Ruiz-Barba, J.L. (2019). Microbial biogeography of Spanish-style green olive fermentations in the province of Seville, Spain. Food Microbiol. 2019 Sep;82:259-268. doi: 10.1016/j.fm.2019.02.004. Epub 2019 Feb 20. PMID: 31027782.	NCIMB 13873 IAM 14980 DSMZ 19582 NBRC 100002	Ishikawa, M., Nakajima, K., Yanagi, M., Yamamoto, Y. and Yamasato, K. (2003). Marinilactibacillus psychrotolerans gen. nov., sp. nov., a halophilic and alkaliphilic marine lactic acid bacterium isolated from marine organisms in temperate and subtropical areas of Japan. Int. J. Syst. Evol. Microbiol. 53,711-720.
Monera	*Firmicutes*	*Clostridiaceae*	*Clostridium*	*Clostridium kluyveri*		Alcoholic Beverages	Yan, S., Wang, S., Qiu, Z., Wei, G., & Zhang, K. (2015). Optimization of Caproic Acid Production from Clostridium kluyveri H588 and its Application in Chinese Luzhou-flavor Liquor Brewing[J]. Advanced Journal of Food Science & Technology, 7(8): 614-626. Wang, Y., Li, B., Dong, H. (2018), Complete Genome Sequence of Clostridium kluyveri JZZ Applied in Chinese Strong-Flavor Liquor Production. Curr Microbiol,75(11): 1429-1433.	ATCC 8527	Barker, H.A., Taha, S.M. (1942) Clostridium kluyverii, an Organism Concerned in the Formation of Caproic Acid from Ethyl Alcohol[J]. J Bacteriol, 1942, 43:347-363. Knabel, S., Tatzel, R., Ludwig, W, et al. (1997). Identification of Clostridium butyricum, Clostridium sporogenes and Clostridium tyrobutyricum by Hybridization with 16S rRNA_targeted Oligonucleotide Probes[J]. Syst Appl Microbiol, 1997, 20(1):85-88.
Monera	*Firmicutes*	*Clostridiaceae*	*Clostridium*	*Clostridium tyrobutyricum*		Alcoholic Beverages	Tian, Y., Heng, X.C., Zou, W. (2019). Isolation and identification of clostridia from the pit mud of Strong-flavor Baijiu and comparative study on butyric acid production[J]. Food and Fermentation Industries, 45:60-65. (in Chinese)	ATCC 25755	Van Beynum, J., Pette, J.W. (1935). Zuckervergärend und Laktat vergärende Buttersäurebakterien. Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, Abteilung II, 1935, 93:198-212. Mukherjee, S., Seshadri, R., Varghese, N.J. et al. (2017). 1,003 reference genomes of bacterial and archaeal isolates expand coverage of the tree of life[J]. Nat Biotechnol, 2017, 35:676-683.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus durans*		Dairy	De Angelis, M. (2008). Selection and use of autochthonous multiple strain cultures for the manufacture of high-moisture traditional Mozzarella cheese. International Journal of Food Microbiology 125, 123–132.	ATCC 19432	Sherman, J.M., Wing, H.U. (1937). Streptococcus durans N. Sp. Jour. Dairy Sci. 20, 165-167.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus durans*		Bakery	Miguel Rocha, J., Xavier Malcata, F. (1999). On the Microbiological Profile of Traditional Portuguese Sourdough. Journal of Food Protection 62, 1416–1429	ATCC 19432	Sherman, J.M., Wing, H.U. (1937). Streptococcus durans N. Sp. Jour. Dairy Sci. 20, 165-167.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecalis*		Dairy	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19433	Schleifer, K.H., Kilpper-Balz, R. (1984). Transfer of Streptococcus faecalis and Streptococcus faecium to the genus Enterococcus nom. rev. as Enterococcus faecalis comb. nov. and Enterococcus faecium comb. nov. Int. J. Syst. Bacteriol. 34, 31-34.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecalis*		Meat	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19433	Schleifer, K.H., Kilpper-Balz, R. (1984). Transfer of Streptococcus faecalis and Streptococcus faecium to the genus Enterococcus nom. rev. as Enterococcus faecalis comb. nov. and Enterococcus faecium comb. nov. Int. J. Syst. Bacteriol. 34, 31-34.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecalis*		Plant Based	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19433	Schleifer, K.H., Kilpper-Balz, R. (1984). Transfer of Streptococcus faecalis and Streptococcus faecium to the genus Enterococcus nom. rev. as Enterococcus faecalis comb. nov. and Enterococcus faecium comb. nov. Int. J. Syst. Bacteriol. 34, 31-34.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecalis*		Plant Based	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19433	Schleifer, K.H., Kilpper-Balz, R. (1984). Transfer of Streptococcus faecalis and Streptococcus faecium to the genus Enterococcus nom. rev. as Enterococcus faecalis comb. nov. and Enterococcus faecium comb. nov. Int. J. Syst. Bacteriol. 34, 31-34.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecium*		Dairy	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19434	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecium*		Meat	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19434	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecium*		Plant Based	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19434	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Enterococcaceae*	*Enterococcus*	*Enterococcus faecium*		Plant Based	Foulquie´ Moreno, M.R., Sarantinopoulos, P., Tsakalidou, E., Vuyst, L. De. (2006). The role and application of enterococci in food and health. International Journal of Food Microbiology 106, 1-24.	ATCC 19434	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Enterococcaceae*	*Tetragenococcus*	*Tetragenococcus halophilus*		Plant Based	Noda, F., Hayashi, K., Mizunuma, T. (1980). Antagonism Between Osmophilic Lactic Acid Bacteria and Yeasts in Brine Fermentation of Soy Sauce. Appl Environ Microbiol. 40, 452-457. Nishimura, I., Igarashi, T., Enomoto, T., Dake, Y., Okuno, Y., Obata, A. (2009). Clinical efficacy of halophilic lactic acid bacterium Tetragenococcus halophilus Th221 from soy sauce moromi for perennial allergic rhinitis. Allergol Int. 58:179-85.	ATCC 33315 DSM 20339	Anon. (1994). Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB List No. 49. Int. J. Syst. Bacteriol. 44: 370 - 371 Collins, M.D., Williams, A.M., Wallbanks, S. (1990). The phylogeny of Aerococcus and Pediococcus as determined by 16S rRNA sequence analysis: description of Tetragenococcus gen. nov. FEMS Microbiol Lett. 58, 255-62.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Enterococcaceae*	*Tetragenococcus*	*Tetragenococcus halophilus*		Seafood	Belleggia, L., Aquilanti, L., Ferrocino, I., Milanović, V., Garofalo, C., Clementi, F., Cocolin, L., Mozzon, M., Foligni, R., Haouet, M.N., Scuota, S., Framboas, M., Osimani, A. (2020). Discovering microbiota and volatile compounds of surströmming, the traditional Swedish sour herring. Food Microbiol. 2020 Oct;91:103503. doi: 10.1016/j.fm.2020.103503. Epub 2020 Apr 9. PMID: 32539969. Song, E.J., Lee, E.S., Park, S.L., Choi, H.J., Roh, S.W., Nam, Y.D. (2018). Bacterial community analysis in three types of the fermented seafood, jeotgal, produced in South Korea. Biosci Biotechnol Biochem. 2018 Aug;82(8):1444-1454. doi: 10.1080/09168451.2018.1469395. Epub 2018 May 9. PMID: 29742980. Satomi, M., Furushita, M., Oikawa, H., Yoshikawa-Takahashi, M., Yano, Y. (2008). Analysis of a 30 kbp plasmid encoding histidine decarboxylase gene in Tetragenococcus halophilus isolated from fish sauce. Int J Food Microbiol. 2008 Aug 15;126(1-2):202-9. doi: 10.1016/j.ijfoodmicro.2008.05.025. Epub 2008 May 25. PMID: 18573560.	ATCC 33315 DSM 20339	Anon. (1994). Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB List No. 49. Int. J. Syst. Bacteriol. 44: 370 - 371 Collins, M.D., Williams, A.M., Wallbanks, S. (1990). The phylogeny of Aerococcus and Pediococcus as determined by 16S rRNA sequence analysis: description of Tetragenococcus gen. nov. FEMS Microbiol Lett. 58, 255-62.
Monera	*Firmicutes*	*Enterococcaceae*	*Tetragenococcus*	*Tetragenococcus koreensis*		Meat	Amadoro, C., Rossi, F., Piccirilli, M., Colavita, G. (2015). Tetragenococcus koreensis is part of the microbiota in a traditional Italian raw fermented sausage. Food Microbiol. 2015 Sep;50:78-82. doi: 10.1016/j.fm.2015.03.011. Epub 2015 Apr 8. PMID: 25998818. Lee, M., Kim, M.K., Vancanneyt, M., Swings, J., Kim, S.H., Kang, M.S., Lee, S.T. (2005). Tetragenococcus koreensis sp. nov., a novel rhamnolipid-producing bacterium. Int. J. Syst. Evol. Microbiol. 55, 1409-1413.	DSM 16501	Lee, M., Kim, M.K., Vancanneyt, M., Swings, J., Kim, S.H., Kang,. M.S., Lee, S.T. (2005). Tetragenococcus koreensis sp. nov., a novel rhamnolipid-producing bacterium. Int. J. Syst. Evol. Microbiol. 55, 1409-1413.
Monera	*Firmicutes*	*Lactobacillaceae*	*Agrilactobacillus*	*Agrilactobacillus composti*		Alcoholic Beverages	Endo, A., Okada, S. (2007). Lactobacillus composti sp. nov., a lactic acid bacterium isolated from a compost of distilled shochu residue. Int. J. Syst. Evol. Microbiol., 57, 870-872. NRIC 0689	NRIC 0689	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Bakery	Fujimoto, A., Ito, K., Narushima, N., Miyamoto, T. (2019). Identification of lactic acid bacteria and yeasts, and characterization of food components of sourdoughs used in Japanese bakeries. J Biosci Bioeng. 2019 May;127(5):575-581.	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Alcoholic Beverages	Huang, Z.R., Guo, W.L., Zhou, W.B., Li, L., Xu, J.X., Hong, J.L., Liu, H.P., Zeng, F., Bai, W.D., Liu, B., Ni, L., Rao, P.F., Lv, X.C. (2019). Microbial communities and volatile metabolites in different traditional fermentation starters used for Hong Qu glutinous rice wine. Food Res Int. 2019 Jul;121:593-603	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004108
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Dairy	Cardinali, F., Osimani, A., Taccari, M., Milanović, V., Garofalo, C., Clementi, F., Polverigiani, S., Zitti, S., Raffaelli, N., Mozzon, M., Foligni, R., Franciosi, E., Tuohy, K., Aquilanti, L. (2017). Impact of thistle rennet from Carlina acanthifolia All. subsp. acanthifolia on bacterial diversity and dynamics of a specialty Italian raw ewes' milk cheese. Int J Food Microbiol. 2017 Aug 16;255:7-16.	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004109

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Meat	García Fontán, M.C. (2007). Microbiological characteristics of androlla, a Spanish traditional pork sausage. Food Microbiol. 24, 52-8.	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Seafood	Paludan-Müller, C., Madsen, M., Sophanodora, P., Gram, L., Lange Møller, P. (2002). Fermentation and microflora of plaa-som, a thai fermented fish product prepared with different salt concentrations. Int J Food Microbiol 25;73(1):61-70	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus alimentarius*		Plant Based	Yalçınkaya, S., Kılıç, G.B. (2019). Isolation, identification and determination of technological properties of the halophilic lactic acid bacteria isolated from table olives. J Food Sci Technol. 2019 Apr;56(4):2027-2037. doi: 10.1007/s13197-019-03679-9. Epub 2019 Mar 6. PMID: 30996437; PMCID: PMC6443818.	ATCC 29643	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus crustorum*		Meat	Lu, Y., Aizhan, R., Yan, H., Li, X., Wang, X., Yi, Y., Shan, Y., Liu, B., Zhou, Y., Lü, X. (2020). Characterization, modes of action, and application of a novel broad-spectrum bacteriocin BM1300 produced by Lactobacillus crustorum MN047. Braz J Microbiol. 2020 Dec;51(4):2033-2048.	LMG 23699	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus crustorum*		Bakery	Ravyts, F., De Vuyst, L. (2011). Prevalence and impact of single-strain starter cultures of lactic acid bacteria on metabolite formation in sourdough. Food Microbiol 28(6):1129-39.	LMG 23699	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus farciminis*		Seafood	Tanasupawat, S., Okada, S., Komagata, K. (1998). Lactic acid bacteria found in fermented fish in Thailand J. Gen Appl. Microbiol. 44(3):193-200	ATCC 29644	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus farciminis*		Meat	Samelis, J., Maurogenakis, F. and Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int. J. Food Microbiol., 23, 179-196.	ATCC 29644	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus farciminis*		Plant Based	Chao, S.H. et al. (2008). Diversity of lactic acid bacteria in fermented brines used to make stinky tofu. Int. J. Food Microbiol., 123, 134-141.	ATCC 29644	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus kimchiensis*		Plant Based	Kim, J., Kim, J.Y., Kim, M.S., Roh, S.W., Bae, J.W. (2013). Lactobacillus kimchiensis sp. nov., isolated from a fermented food. Int J Syst Evol Microbiol. 2013 Apr;63(Pt 4):1355-1359.	DSM 24716	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus kimchiensis*		Alcoholic Beverages	Leech, J., Cabrera-Rubio, R., Walsh, A.M., Macori, G., Walsh, C.J., Barton, W., Finnegan, L., Crispie, F., O'Sullivan, O., Claesson, M.J., Cotter, P.D. (2020). Fermented-food metagenomics reveals substrate-associated differences in taxonomy and health-associated and antibiotic resistance	DSM 24716	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus mindensis*		Bakery	Ehrmann, M.A., Müller, M.R.A., Vogel, R.F. (2003). Molecular analysis of sourdough reveals Lactobacillus mindensis sp. nov. Int. J. Syst. Evol. Microbiol. 53, 7-13.	DSM 14500	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus nantensis*		Bakery	Valcheva, R., Ferchichi, M.F., Korakli, M., Ivanova, I., Gänzle, M.G., Vogel, R.F., Prévost, H., Onno, B., Dousset, X. (2006). Lactobacillus nantensis sp. nov., isolated from French wheat sourdough. Int. J. Syst. Evol. Microbiol. 56, 587-591.	DSM 16982	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus nodensis*		Plant Based	Kashiwagi, T., Suzuki, T., Kamakura, T. (2009). Lactobacillus nodensis sp. nov., isolated from rice bran. Int. J. Syst. Evol. Microbiol. 59, 83-86.	DSM 19682	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus nodensis*		Dairy	Masoud, W., Takamiya, M., Vogensen, F.K., Lillevang, S., Al-Soud, W.A., Sørensen, S.J., Jakobsen, M. (2010). Characterization of bacterial populations in Danish raw milk cheeses made with different starter cultures by denaturating gradient gel electrophoresis (DGGE) and pyrosequencing. International Dairy Journal 21, 142-148.	DSM 19682	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus paralimentarius*		Bakery	Cai, Y., Okada, H., Mori, H., Benno, Y., Nakase, T. (1999). Lactobacillus paralimentarius sp. nov., isolated from sourdough. Int. J. Syst. Bacteriol. 49, 1451-1455.	JCM 10415	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus tucceti*		Dairy	Masoud, W., Takamiya, M., Vogensen, F.K., Lillevang, S., Al-Soud, W.A., Sørensen, S.J., Jakobsen, M. (2010). Characterization of bacterial populations in Danish raw milk cheeses made with different starter cultures by denaturating gradient gel electrophoresis (DGGE) and pyrosequencing. International Dairy Journal 21, 142-148.	DSM 20183	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus tucceti*		Meat	Chenoll, E., Macian, M.C., Aznar, R. (2006). Lactobacillus tucceti sp. nov., a new lactic acid bacterium isolated from sausage. Syst. Appl. Microbiol. 29, 389-395.	DSM 20183	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus versmoldensis*		Dairy	El-Baradei, G., Delacroix-Buchet, A., Ogier, J.C. (2007). Biodiversity of bacterial ecosystems in traditional Egyptian Domiati cheese. Appl Environ Microbiol. 2007 Feb;73(4):1248-55. doi: 10.1128/ AEM.01667-06.	DSM 14857	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Companilactobacillus*	*Companilactobacillus versmoldensis*		Meat	Kröckel, L., Schillinger, U., Franz, C.M.A.P., Bantleon, A., Ludwig, W. (2003). Lactobacillus versmoldensis sp. nov., isolated from raw fermented sausage. Int. J. Syst. Evol. Microbiol. 53, 513-517.	DSM 14857	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Fructilactobacillus*	*Fructilactobacillus fructivorans*		Alcoholic Beverages	Pardo, I. and Zuniga, M. (1992). Lactic Acid Bacteria in Spanish Red Rose and White Musts and Wines, Journal of Food Science 57 No. 2, p392-397	ATCC 8288	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Fructilactobacillus*	*Fructilactobacillus fructivorans*		Bakery	Vogel, R.F., Böcker, G., Stolz, P., Ehrmann, M., Fanta, D., Ludwig, W., Pot, B., Kersters, K., Schleifer, K.H., Hammes, W.P. (1994). Identification of lactobacilli from sourdough and description of Lactobacillus pontis sp. nov. Int. J. Syst. Bacteriol. 44, 223-229.	ATCC 8288	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Fructilactobacillus*	*Fructilactobacillus fructivorans*		Alcoholic Beverages	Kitahara, K., Kaneto, T., Goto, O. (1957). Taxonomic studies on the hiochi-bacteria, specific saprophytes of sake. II. Identification and classification of hiochi-bacteria. Journal of General and Applied Microbiology 3, 111-120.	ATCC 8288	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Fructilactobacillus*	*Fructilactobacillus sanfranciscensis*		Bakery	Vogel, R.F. (1999). Non-dairy lactic fermentations: the cereal world. Antonie Van Leeuwenhoek 76(1-4), 403-11.	ATCC 27651	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Furfurilactobacillus*	*Furfurilactobacillus rossiae*		Bakery	Corsetti, A., Settanni, L., Van Sinderen, D., Felis, G.E., Dellaglio, F., Gobbetti, M. (2005). Lactobacillus rossii sp. nov., isolated from wheat sourdough. Int. J. Syst. Evol. Microbiol. 55, 35-40.	DSM 15814	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Furfurilactobacillus*	*Furfurilactobacillus siliginis*		Bakery	Aslam, Z., IM, W.T., Ten, L.N., Lee, M.J., Kim, K.H., Lee, S.T. (2006). Lactobacillus siliginis sp. nov., isolated from wheat sourdough in South Korea. Int. J. Syst. Evol. Microbiol. 56, 2209-2213.	NBRC 101315	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus casei*		Meat	Samelis, J., Maurogenakis, F., Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int J Food Microbiol. 1994 Oct;23(2):179-96.	ATCC 393	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus casei*		Plant Based	Blaiotta, G., Di Capua, M., Coppola, R., Aponte, M. (2012). Production of fermented chestnut purees by lactic acid bacteria. Int J Food Microbiol. 2012 Sep 3;158(3):195-202	ATCC 393	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus casei*		Plant Based	Randazzo, C.L., Restuccia, C., Romano, A.D., Caggia, C. (2004). Lactobacillus casei, dominant species in naturally fermented Sicilian green olives. Int J Food Microbiol. 2004 Jan 1;90(1):9-14.	ATCC 393	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus casei*		Dairy	Hyde, L.S. (1927). A study of some of the lactobacilli. Iowa State College	ATCC 393	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus casei*		Alcoholic Beverages	Lonvaud-Funel, A., Joyeux, A. and Ledoux, O. (1991). Specific enumeration of lactic acid bacteria in fermenting grape must and wine by colony hybridization with non-isotopic DNA Probes, Journal of Applied Bacteriology, Vol. 71, p. 501-508	ATCC 393	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus manihotivorans*		Bakery	Morlon-Guyot, J., Guyot, J.P., Pot, B., Jacobe de Haut, I., Raimbault, M. (1998). Lactobacillus manihotivorans sp. nov., a new starch-hydrolysing lactic acid bacterium isolated during cassava sour starch fermentation. Int. J. Syst. Bacteriol. 48, 1101-1109.	DSM 13343	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Bakery	Denkova, R., Ilieva, S., Denkova, Z., Georgieva, L., Yordanova, M., Nikolova, D., Evstatieva, Y. (2014). Production of wheat bread without preservatives using sourdough starters. Biotechnol Biotechnol Equip. 2014 Sep 3;28(5):889-898.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Alcoholic Beverages	Todovrov, S.D., Dicks, L.M.T. (2004). Screening of Lactic Acid Bacteria from South African Barley Beer for Production of Bacteriocin-like Compounds. Folia Microbiol 49 (4) 406-410	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Dairy	Poveda, J.M., Nieto-Arribas, P., Seseña, S., Chión, R., Castro, L., Palo, L., Cabezas, L. (2014). Volatile composition and improvement of the aroma of industrial Manchego cheese by using Lactobacillus paracasei subsp. paracasei as adjunct and other autochthonous strains as starters. Eur Food Res Technol 238, 485–494.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Meat	Sameshima, T. (1998). Effect of intestinal Lactobacillus starter cultures on the behaviour of Staphylococcus aureus in fermented sausage. Int J Food Microbiol. 41, 1-7.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Alcoholic Beverages	Magalhães, K.T. et al. (2010). Microbial communities and chemical changes during fermentation of sugary Brazilian kefir. World J. Microbiol. Biotechnol., 26, 1241-1250. Romero-Luna, H.E. et al. (2020). Probiotic potential of lactobacillus paracasei CT12 isolated from water kefir grains (Tibicos). Curr. Microbiol., 77, 2584-2592.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Plant Based	Seseña, S. and Palop, M.Ll. (2007). An ecological study of lactic acid bacteria from Almagro eggplant fermentation brines. J. Appl. Microbiol., 103, 1553-1561. Todorov, S.D. and Dicks, L.M.T. (2006). Screening for bacteriocin-producing lactic acid bacteria from boza, a traditional cereal beverage from Bulgaria. Comparison of the bacteriocins. Process Biochem., 41, 11-19.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus paracasei*	*Lacticaseibacillus paracasei* subsp. *paracasei*	Plant Based	Annggriawan, R. (2017). Microbiological and food safety aspects of Tempeh prodcution in Indonesia. PhD thesis, Georg-August-University Göttingen, Germany.	ATCC 25302	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Plant Based	Blaiotta, G., Di Capua, M., Coppola, R., Aponte, M. (2012). Production of fermented chestnut purees by lactic acid bacteria. Int J Food Microbiol. 2012 Sep 3;158(3):195-202	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Dairy	Salminen, S. (1994). Healthful properties of Lactobacillus GG. Dairy Industries Int. Jan. (59).	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Meat	Erkkilä, S., Suihko, M.L., Eerola. S., Petäjä, E., Mattila-Sandholm, T. (2001). Dry sausage fermented by Lactobacillus rhamnosus strains. Int. J. Food. Microbiol. Feb 28;64 (1-2): 205-210.	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Plant Based	Todorov, S.D. and Dicks, L.M.T. (2006). Screening for bacteriocin-producing lactic acid bacteria from boza, a traditional cereal beverage from Bulgaria. Comparison of the bacteriocins. Process Biochem., 41, 11-19.	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Plant Based	Oh, A., Daliri, E.B.-M. and Oh, D.H. (2018). Screening for potential probiotic bacteria from Korean fermented soybean paste: In vitro and Caenorhabditis elegans model testing. LWT, 88, 132-138.	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lacticaseibacillus*	*Lacticaseibacillus rhamnosus*		Plant Based	Lee, H., Yoon, H., Ji, Y., Kim, H.,Park, H., Lee, J., Shin, H., Holzapfel, W. (2011). Functional properties of Lactobacillus strains isolated from kimchi. Int J Food Microbiol. 145, 155-61.	ATCC 7469	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus fabifermentans*		Plant Based	De Bruyne, K., Camu, N., De Vuyst, L., Vandamme, P. (2009). Lactobacillus fabifermentans sp. nov. and Lactobacillus cacaonum sp. nov., isolated from Ghanaian cocoa fermentations. Int. J. Syst. Evol. Microbiol. 59, 7-12.	DSM 21115	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Plant Based	Pulido, R.P., Omar, N.B., Abriouel, H., López, R.L., Cañamero, M.M., Guyot, J.P., Gálvez, A. (2007). Characterization of lactobacilli isolated from caper berry fermentations. J Appl Microbiol. 2007 Feb;102(2):583-90.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Plant Based	Chun, J., Kim, G.M., Lee, K.W., Choi, I.D., Kwon, G.H., Park, J.Y., Jeong, S.J., Kim, J.S., Kim, J.H. (2007). Conversion of isoflavone glucosides to aglycones in soymilk by fermentation with lactic acid bacteria. J Food Sci. 2007 Mar;72(2):M39-44.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Alcoholic Beverages	Mtshali, P.S., Divol, B., van Rensburg, P., du Toit, M. (2010). Genetic screening of wine-related enzymes in Lactobacillus species isolated from South African wines. J Appl Microbiol. 2010 Apr;108(4):1389-97.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Meat	Liu, L., Li, P. (2016). Complete genome sequence of Lactobacillus paraplantarum L-ZS9, a probiotic starter producing class II bacteriocins. J Biotechnol. 2016 Mar 20;222:15-6. doi: 10.1016/j. jbiotec.2016.02.003. Epub 2016 Feb 4. PMID: 26853479.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Seafood	Park, S.K., Jo, D.M., Yu, D., Khan, F., Lee, Y.B., Kim, Y.M. (2020). Reduction of Trimethylamine Off-Odor by Lactic Acid Bacteria Isolated from Korean Traditional Fermented Food and Their In Situ Application. J Microbiol Biotechnol. 2020 Oct 28;30(10):1510-1515	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Dairy	Manolopoulou, E. (2003). Evolution of microbial populations during traditional Feta cheese manufacture and ripening. Int J Food Microbiol. 82, 153-61.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus paraplantarum*		Plant Based	Mäkimattila, E., Kahala, M., Joutsjoki, V. (2010). Characterization and electrotransformation of Lactobacillus plantarum and Lactobacillus paraplantarum isolated from fermented vegetables. World Journal of Microbiology and Biotechnology. 27 (2): 371–379.	ATCC 700211	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Meat	Con, A.H., Gökalp, H.Y. (2000). Production of bacteriocin-like metabolites by lactic acid cultures isolated from sucuk samples. Meat Sci. 2000 May;55(1):89-96	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Bakery	Fujimoto, A., Ito, K., Narushima, N., Miyamoto, T. (2019). Identification of lactic acid bacteria and yeasts, and characterization of food components of sourdoughs used in Japanese bakeries. J Biosci Bioeng. 2019 May;127(5):575-581	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Plant Based	Almeida, E.G., Rachid, C.C., Schwan, R.F. (2007). Microbial population present in fermented beverage 'cauim' produced by Brazilian Amerindians. Int J Food Microbiol. 2007 Nov 30;120(1-2):146-51.	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Alcoholic Beverages	Todovrov, S.D., Dicks, L.M.T. (2004). Rev Latinoam Microbiol Parasitol (Mex) 8, 33-7. Screening of Lactic Acid Bacteria from South African Barley Beer for Production of Bacteriocin-like Compounds. Folia Microbiol 49 (4) 406-410 http://www.biomed.cas.cz/mbu/ folia/	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Dairy	Psoni, L., Tzanetakis, N., Litopoulou-Tzanetaki, E. (2003). Microbial character-istics of Batzos, a traditional Greek cheese from raw goat's milk. FoodMicrobiology 20, 575–582.	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Plant Based	Emerenini, C., Afolabi, O.R., Okolie, P.I., Akintokun, A.K. (2013). Isolation and Molecular Characterization of Lactic Acid Bacterial Isolated from Fresh Fruits and Vegetables Using Nested PCR Analysis. British Microbiology Research Journal 3 (3): 368-377.	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Plant Based	Emerenini, C., Afolabi, O.R., Okolie, P.I., Akintokun, A.K. (2013). Isolation and Molecular Characterization of Lactic Acid Bacterial Isolated from Fresh Fruits and Vegetables Using Nested PCR Analysis. British Microbiology Research Journal 3 (3): 368-377.	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus pentosus*		Alcoholic Beverages	Poittevin de De Cores, Carrasco, A. (1966). Study on malolactic fermentation of wines in Uruguay. V. Study of the metabolism of Lactobacillus plantarum (pentosus and arabinosus) and of Lactobacillus buchneri isolated from wines and their enologic uic use.	ATCC 8041	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Plant Based	Leisner, J.J., Vancanneyt, M., Rusul, G., Pot, B., Lefebvre, K., Fresi, A., Tee, L.K. (2001). Identification of lactic acid bacteria constituting the predominating microflora in an acid-fermented condiment (tempoyak) popular in Malaysia. Int J Food Microbiol. 2001 Jan 22;63(1-2):149-57.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Bakery	Reale, A., Mannina, L., Tremonte, P., Sobolev, A.P., Succi, M., Sorrentino, E., Coppola, R. (2004). Phytate degradation by lactic acid bacteria and yeasts during the wholemeal dough fermentation: a 31P NMR study. J Agric Food Chem. 2004 Oct 6;52(20):6300-5.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Alcoholic Beverages	Bhandari, R.R., Russell, C., Walker, T.K. (1954). Study of Lactic Acid Bacteria Associated with Brewery Products. J.Sc.. Food Agri. January 5, 27-31. Todovrov, S.D., Dicks, L.M.T. (2004). Screening of Lactic Acid Bacteria from South African Barley Beer for Production of Bacteriocin-like Compounds. Folia Microbiol 49 (4) 406-410 http://www.biomed.cas.cz/mbu/folia/	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Dairy	Cogan, T.M. (1996). History and taxonomy of starter cultures. In Dairy Starter Cultures. TM. Cogand and JP Accolas, editors. VCH Publishers: New York. 1-23.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Seafood	Orillo, C.A., Pederson, C.S. (1968). Lactic acid bacterial fermentation of burong dalag. Appl Microbiol. 16, 1669-71. Jeppesen, V. F., Huss, H.H. (1993). Characteristics and anatgonistic activity of lactic acic bacteria isolated from chille fish products. IJFM 18, 305-320 Fricourt et al. (1994). L plantarum BF001 Isolated from Processed Channel Catfish. J Food Protection 57 p698-702	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Meat	Hammes, W.P., Knauf, H.J. (1994). Starters in the Processing of Meat Products. Meat Science 36 155-168 Samelis, J., Maurogenakis, F. and Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int. J. Food Microbiol., 23, 179-196.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Plant Based	Trias, R., Baneras, L., Badosa, E., Montesinos, E. (2008). Bioprotection of Golden Delicious apples and Iceberg lettuce against foodborne bacterial pathogens by lactic acid bacteria IJFM 123 50-60	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Alcoholic Beverages	König, H., Unden, G., Fröhlich, J. (2009). Biology of Microorganisms on Grapes, in Must and in Wine. Springer-Verlag DOI: 10.1007/978-3-540-85463-0 Carlo, P., Cansado, J., Velfizquez, J.B., Sieiro, C., Longo, E. and Villa, T.G. (1991) Effect of diffrent physioco-chemical condition on malolactic fermentation of four lactobacillus plantarum wild strains isolated from wines of Northwestern Spain Biotechnology Letters 13 No 11 p781-787 Velázquez, J.B., Carlo, P., Longo, E., Cansado, J., Sieiro, C., Villa T.G. (1991). Effect of L-Malate, D-Glucose and L-Lactate on malolactic Fermentation and Growth of Lactobacillus plantarum and Lactobacillus curvatus Wild Strains Isolated from Wine J.of Fermentetion and Bioengineering 71 No 5, 363-366.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactiplantibacillus*	*Lactiplantibacillus plantarum*	*Lactiplantibacillus plantarum* subsp. *plantarum*	Plant Based	Kim, T.-W. et al. (2009). Analysis of microbial communities in doenjang, a Korean fermented soypaste, using nested PCR-denaturing gradient gel electrophoresis. Int. J. Food Microbiol., 131, 265-271.	ATCC 14917	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acetotolerans*		Bakery	Vera, A., Ly-Chatain, M.H., Rigobello, V., Demarigny, Y. (2012). Description of a French natural wheat sourdough over 10 consecutive days focussing on the lactobacilli present in the microbiota. Antonie Van Leeuwenhoek. 2012 Feb;101(2):369-77.	ATCC 43578	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acetotolerans*		Plant Based	Arici, M., Coskun, F. (2001). Hardaliye: Fermented grape juice as a traditional Turkish beverage. Food Microbiology 18, 417–421.	ATCC 43578	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acetotolerans*		Vinegar	Entani, E., Masai, H., Suzuki, K-I. (1986). Lactobacillus acetotolerans, a new species from fermented vinegar broth. Int J Syst Bacteriol 1986;36:544–549.	ATCC 43578	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acidophilus*		Dairy	Weiss, N., Busse, M., Kandler, O. (1968). The origin of fermentation by-products in the lactic acid fermentation of Lactobacillus acidophilus. Arch Mikrobiol. 62, 85-93. Baroudi, A.A., Collins, E.B. (1976). Microorganisms and characteristics of laban. J Dairy Sci. 59, 200-2.	ATCC 700396	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acidophilus*		Plant Based	Buruleanu, C., Nicolescu, C., Avram, D., Manea, I., Bratu, M. (2012). Effects of yeast extract and different amino acids on the dynamics of some components in cabbage juice during fermentation with Bifidobacterium lactis BB-12. Food Science & Biotechnology, 21, 691-699	ATCC 700396	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acidophilus*		Alcoholic Beverages	Sohrabvandi, S., Mousavi, S.M., Razavi, S.H., Shaheed Behesti. (2010). Viability of probiotic bacteria in low alcohol and non-alcoholic beer during refrigerated storage. Philipp Agr Scient 93(1):104-109.	ATCC 700396	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acidophilus*		Plant Based	Salovaara, H. (1996). The time of cereal based functional foods is here: introducing Yosa®, a vellie. In Skrede, G. and Magnus, E.M. (Eds), 26th Nordic Cereal Congress, 195-202.	ATCC 700396	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus acidophilus*		Plant Based	Akinola, O.J. et al. (2015). Chemical characterisation and microbiological quality of naturally fermenting soy milk	ATCC 700396	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylolyticus*		Plant Based	Fei, Y., Li, L., Chen, L., Zheng, Y., Yu, B. (2018). High-throughput sequencing and culture-based approaches to analyze microbial diversity associated with chemical changes in naturally fermented tofu whey, a traditional Chinese tofu-coagulant. Food Microbiol. 2018 Dec;76:69-77.	DSM 11664	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylolyticus*		Plant Based	Liu, Z., Li, J., Wei, B., Huang, T., Xiao, Y., Peng, Z., Xie, M., Xiong, T. (2019). Bacterial community and composition in Jiang-shui and Suan-cai revealed by high-throughput sequencing of 16S rRNA. Int J Food Microbiol. 2019 Oct 2;306:108271	DSM 11664	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylolyticus*		Dairy	Yang, J., Yu, P., Liu, X., Zhao, J., Zhang, H., Chen, W. (2021). Shifts in diversity and function of bacterial community during manufacture of Rushan. J Dairy Sci. 2021 Sep 2:S0022-0302(21)00862-6.	DSM 11664	Zheng et al., A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylolyticus*		Bakery	Pedersen, C. (2004). Microbiological characterization of wet wheat distillers' grain, with focus on isolation of lactobacilli with potential as probiotics. Appl Environ Microbiol. 70, 1522-7.	DSM 11664	Zheng et al., A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylolyticus*		Alcoholic Beverages	Bohak, I., Back, W., Richter, L., Ehrmann, M., Ludwig, W., Schleifer, K.H. (1998). Lactobacillus amylolyticus sp. nov., isolated from beer malt and beer wort. Syst Appl Microbiol. 1998 Aug;21(3):360-4. doi: 10.1016/S0723-2020(98)80045-3. PMID: 9779604.	DSM 11664	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylovorus*		Alcoholic Beverages	Bohak, I., Back, W., Richter, L., Ehrmann, M., Ludwig, W., Schleifer, K.H. (1998). Lactobacillus amylolyticus sp. nov., isolated from beer malt and beer wort. Syst Appl Microbiol. 1998 Aug;21(3):360-4.	ATCC 33620	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus amylovorus*		Bakery	Fitzsimons, A. (1994). Development of an amylolytic Lactobacillus plantarum silage strain expressing the Lactobacillus amylovorus alpha-amylase gene. Appl Environ Microbiol. 60, 3529-35.	ATCC 33620	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus crispatus*		Plant Based	Tomita, S., Watanabe, J., Nakamura, T., Endo, A., Okada, S. (2020). Characterisation of the bacterial community structures of sunki, a traditional unsalted pickle of fermented turnip leaves. J Biosci Bioeng. 2020 May;129(5):541-551. doi: 10.1016/j.jbiosc.2019.11.010.	ATCC 33820	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus crispatus*		Dairy	Henri-Dubernet, S., Desmasures, N., Guéguen, M. (2008). Diversity and dynamics of lactobacilli populations during ripening of RDO Camembert cheese. Can J Microbiol. 2008 Mar;54(3):218-28.	ATCC 33820	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus crispatus*		Bakery	Ehrmann, M.A., Vogel, R.F. (2005). Molecular taxonomy and genetics of sourdough lactic acid bacteria Trends in Food Science & Technology 16, 31-42.	ATCC 33820	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *bulgaricus*	Alcoholic Beverages	Pilone, G.J., Kunkee, R.E., Webb, A.D. (1966). Chemical characterization of wines fermented with various malo-lactic bacteria. Appl Microbiol. 1966 Jul;14(4):608-15.	ATCC 11842	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *bulgaricus*	Meat	Oliveira, R.B., de L Oliveira, A., Glória, M.B. (2008). Screening of lactic acid bacteria from vacuum packaged beef for antimicrobial activity. Braz J Microbiol. 2008 Apr;39(2):368-74.	ATCC 11842	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *bulgaricus*	Dairy	Shahani, K.M., Chandan, R.C. (1979). Nutritional and healthful aspects of cultured and culture-containing dairy foods. J Dairy Sci. 62, 1685-94.	ATCC 11842	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *bulgaricus*	Plant Based	Sengun, I.Y. et al. (2009). Identification of lactic acid bacteria isolated from Tarhana, a traditional Turkish fermented food. Int J. Food Microbiol., 135, 105-111.	ATCC 11842	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *delbrueckii*	Dairy	Ludszuweit, M., Schmacht, M., Keil, C., Haase, H., Senz, M. (2020). Impact of Media Heat Treatment on Cell Morphology and Stability of L. acidophilus, L. johnsonii and L. delbrueckii subsp. delbrueckii during Fermentation and Processing Fermention 6(4):94	ATCC 9649	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *delbrueckii*	Plant Based	Etchells, J.L. (1964). Pure Culture Fermentation of Brined Cucumbers. Appl Microbiol. 12, 523-35.	ATCC 9649	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *delbrueckii*	Alcoholic Beverages	Pilone, G.J., Kunkee, R.E. and Webb, A.D. (1966). Chemical Characterization of Wines Fermented with Various Malo-lactic Bacteria, Applied Microbiology 14 No. 4, p. 608-615	ATCC 9649	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus delbrueckii*	*Lactobacillus delbrueckii* subsp. *lactis*	Dairy	Lazos, E.S. (1993). The fermentation of trahanas: a milk-wheat flour combination. Plant Foods Hum Nutr. 44, 45-62.	ATCC 12315	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus gasseri*		Plant Based	Ewe, J.A., Wan Abdullah, W.N., Bhat, R., Karim, A.A., Liong, M.T. (2012). Enhanced growth of lactobacilli and bioconversion of isoflavones in biotin-supplemented soymilk upon ultrasound-treatment. Ultrason Sonochem. 2012 Jan;19(1):160-73.	ATCC 33323	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus gasseri*		Bakery	Ehrmann, M.A., Vogel, R.F. (2005). Molecular taxonomy and genetics of sourdough lactic acid bacteria. Trends in Food Science & Technology 16, 31-42.	ATCC 33323	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus helveticus*		Plant Based	Champagne, C.P., Tompkins, T.A., Buckley, N.D., Green-Johnson, J.M. (2010). Effect of fermentation by pure and mixed cultures of Streptococcus thermophilus and Lactobacillus helveticus on isoflavone and B-vitamin content of a fermented soy beverage. Food Microbiol. 2010 Oct;27(7):968-72.	ATCC 15009	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus helveticus*		Dairy	Frazier, W.C., Johnson jr, W.T., Evans, F.R., Ramsdell, G.A. (1935). The Bacteriology of Swiss Cheese III. The Relation of Acidity of Starters and of pH of the Interior of Swiss Cheese to Quality of Chesses. Journal Dairy Science 18: 373--388.	ATCC 15009	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus helveticus*		Bakery	Faid, M. et al. (1994). Characterization of sourdough bread ferments made in the laboratory by traditional methods. Z. Lebensm. Unters. Forsch., 198, 287-291. Vogelmann, S.A. et al. (2009). Adatability of lactic acid bacteria and yeasts to sourdoughs prepared from cereals, pseudocereals and cassava and use of competitive strains as starters. Int. J. Food Microbiol., 130, 205-212.	ATCC 15009	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus helveticus*		Plant Based	Schafner, D.W., Beuchat, L.R. (1986). Fermentation of aqueous plant seed extracts by lactic Acid bacteria. Appl Environ Microbiol. 51, 1072-6.	ATCC 15009	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus jensenii*		Dairy	Virtanen, T. (2007). Development of antioxidant activity in milk whey during fermentation with lactic acid bacteria. J Appl Microbiol. 102, 106-15.	ATCC 25258	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus johnsonii*		Dairy	Reuter, G. (1997). Present and future of probiotics in Germany and in Central Europe. Biosci. Microflora, 16, 43-51.	ATCC 49335	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus johnsonii*		Bakery	Ehrmann, M.A., Vogel, R.F. (2005). Molecular taxonomy and genetics of sourdough lactic acid bacteria Trends in Food Science & Technology 16, 31-42.	ATCC 49335	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus kefranofaciens*	*Lactobacillus kefranofaciens* subsp. *kefiranofaciens*	Dairy	Fujisawa, T., Adachi, S., Toba, T., Arihara, K., Mitsuoka, T. (1988). Lactobacillus kefiranofaciens sp. nov. Isolated from kefir grains. Int. J. Syst. Bacteriol. 38, 12–14.	ATCC 43761	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lactobacillus*	*Lactobacillus kefranofaciens*	*Lactobacillus kefranofaciens* subsp. *kefirgranum*	Dairy	Takizawa, S., Kojima, S., Tamura, S., Fujinaga, S., Benno, Y., Nakase, T. (1994). Lactobacillus kefirgranum sp. nov. And Lactobacillus parakefir sp. nov., two new species from kefir grains. Int J Syst Bacteriol 44, 435–439.	ATCC 51647	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lapidilactobacillus*	*Lapidilactobacillus dextrinicus*		Meat	Deibel, R.H. (1961). Microbiology of meat curing. IV. A lyophilized Pediococcus cerevisiae starter culture for fermented sausage. Appl Microbiol. 9, 239-43.	ATCC 33087	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Dairy	Briggiler-Marcó, M., Capra, M.L., Quiberoni, A., Vinderola, G., Reinheimer, J.A., Hynes, E. (2007). Nonstarter Lactobacillus strains as adjunct cultures for cheese making: in vitro characterization and performance in two model cheeses. J Dairy Sci. 2007 Oct;90(10):4532-42.	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Bakery	Pepe, O., Ventorino, V., Cavella, S., Fagnano, M., Brugno, R. (2013). Prebiotic content of bread prepared with flour from immature wheat grain and selected dextran-producing lactic acid bacteria. Appl Environ Microbiol. 2013 Jun;79(12):3779-85.	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Plant Based	Yoon, M.Y., Hwang, H.J. (2008). Reduction of soybean oligosaccharides and properties of alpha-D-galactosidase from Lactobacillus curvatus R08 and Leuconostoc mesenteroides [corrected] JK55. Food Microbiol. 2008 Sep;25(6):815-23.	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Meat	Samelis, J., Maurogenakis, F. and Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int. J. Food Microbiol., 23, 179-196.	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Seafood	Tomé, E., Gibbs, P.A., Teixeira, P.C. (2008). Growth control of Listeria innocua 2030c on vacum-packaged cold-smoked salmon by lactic acid bacteria. IJFM 121, 285-294. Andrighetto, C., Lombardi, A., Ferrati, M., Guidi, A., Corrain, C., Arcangeli, G. (2009). Lactic acid bacteria biodiversity in Italian marinated seafood salad and their interactions on the growth of Listeria monocytogenes. Food Control 20 p462–468 Leroi, F., Cornet, J., Chevalier, F., Cardinal, M., Coeuret, G., Chaillou, S., Joffraud., J.J. (2015). Selection of bioprotective cultures for preventing cold-smoked salmon spoilage. IJFM 213, 79-87.	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus curvatus*		Plant Based	Wouters et al. (2013). Species diversity, community dynamics, and metabolite kinetics of spontaneous leek fermentations. Food Microbiology 33 p185-196	ATCC 25601	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *sakei*	Dairy	Yu, J., Wang, H.M., Zha, M.S., Qing, Y.T., Bai, N., Ren, Y., Xi, X.X., Liu, W.J., Menghe, B.L., Zhang, H.P. (2015). Molecular identification and quantification of lactic acid bacteria in traditional fermented dairy foods of Russia. J Dairy Sci. 2015 Aug;98(8):5143-54.	ATCC 15521	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *sakei*	Bakery	Minervini, F., Lattanzi, A., De Angelis, M., Di Cagno, R., Gobbetti, M. (2012). Influence of artisan bakery- or laboratory-propagated sourdoughs on the diversity of lactic acid bacterium and yeast microbiotas. Appl Environ Microbiol. 2012 Aug;78(15):5328-40.	ATCC 15521	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *sakei*	Alcoholic Beverages	Katagiri, H., Kitahara, K., Fukami, K. (1934). The characteristics of the lactic acid bacteria isolated from moto, yeast mashes for sake manufacture. IV. Classification of the lactic acid bacteria. Bulletin of the Agricultural Chemical Society of Japan 10, 156-157.]	ATCC 15521	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *sakei*	Seafood	Zhang, J., Wang, X., Huo, D., Li, W., Hu, Q., Xu, C., Liu, S., Li, C. (2016). Metagenomic approach reveals microbial diversity and predictive microbial metabolic pathways in Yucha, a traditional Li fermented food. Sci Rep. 2016 Aug 31;6:32524. doi: 10.1038/srep32524. PMID: 27578483; PMCID: PMC5006176. Dai, Z., Li, Y., Wu, J., Zhao, Q. (2013). Diversity of lactic acid bacteria during fermentation of a traditional Chinese fish product, Chouguiyu (stinky mandarinfish). J Food Sci. 2013 Nov;78(11):M1778-83. doi: 10.1111/1750-3841.12289. PMID: 24245896.	ATCC 15521	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *sakei*	Plant Based	Jung, J.Y. et al. (2013). Metatranscriptomic analysis of lactic acid bacterial gene expression during kimchi fermentation. Int. J. Food Microbiol., 163, 171-179. Cho, K.M. and Seo, W.T. (2007). Bacterial diversity in Korean traditional fermented foods (Doenjang and Ganjang) by 16S rRNA gene sequence analysis. Food Sci. Biotechnol., 16, 320-324.	ATCC 15521	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Latilactobacillus*	*Latilactobacillus sakei*	*Latilactobacillus sakei* subsp. *carnosus*	Meat	Bover-Cid, S. (2000). Mixed starter cultures to control biogenic amine production in dry fermented sausages. J Food Prot. 63, 1556-62. Hammes W.P. & Knauf H.J. 1994 Starters in the Processing of Meat Products. Meat Science 36 p 155-168	DSM 15831	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus buchneri*		Plant Based	Zhao, N., Zhang, C., Yang, Q., Guo, Z., Yang, B., Lu, W., Li, D., Tian, F., Liu, X., Zhang, H., Chen, W. (2016). Selection of Taste Markers Related to Lactic Acid Bacteria Microflora Metabolism for Chinese Traditional Paocai: A Gas Chromatography-Mass Spectrometry-Based Metabolomics Approach. J Agric Food Chem. 2016 Mar 23;64(11):2415-22.	ATCC 11577	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus buchneri*		Alcoholic Beverages	Poittevin de De Cores. (1966). Study on malolactic fermentation of wines in Uruguay. V. Study of the metabolism of Lactobacillus plantarum (pentosus and arabinosus) and of Lactobacillus buchneri isolated from wines and their enologic uic use] [Article in Spanish] Rev Latinoam Microbiol Parasitol (Mex) 8, 33-7.	ATCC 11577	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus buchneri*		Bakery	Spicher, G., Schröder, R. (1978). Die Mikroflora des Sauerteiges IV. Mitteilung: Untersuchungen fiber die Art der in ,,Reinzuchtsauern anzutreffenden stäbchenförmigen Milchsäurebakterien (Genus Lactobacillus Beijerinck). Z. Lebensm. Unters. Forsch. 167, 342 354	ATCC 11577	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus diolivorans*		Bakery	Zhang, C., Brandt, M.J., Schwab, C., Gänzle, M.G. (2010). Propionic acid production by cofermentation of Lactobacillus buchneri and Lactobacillus diolivorans in sourdough. Food Microbiol. 2010 May;27(3):390-5.	DSM 14421T	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus diolivorans*		Plant Based	Ibarburu, I., Aznar, R., Elizaquível, P., García-Quintáns, N., López, P., Munduate, A., Irastorza, A., Dueñas, M.T. (2010). A real-time PCR assay for detection and quantification of 2-branched (1,3)-beta-D-glucan producing lactic acid bacteria in cider. Int J Food Microbiol. 2010 Sep 30;143(1-2):26-31.	DSM 14421T	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004108
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus diolivorans*		Dairy	Yu, J., Wang, W.H., Menghe, B.L., Jiri, M.T., Wang, H.M., Liu, W.J., Bao, Q.H., Lu, Q., Zhang, J.C., Wang, F., Xu, H.Y., Sun, T.S., Zhang, H.P. (2011). Diversity of lactic acid bacteria associated with traditional fermented dairy products in Mongolia. J Dairy Sci. 2011 Jul;94(7):3229-41.	DSM 14421T	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004109
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus diolivorans*		Plant Based	Krooneman, J., Faber, F., Alderkamp, A.C., Oude Elferink, S.J.H.W., Driehuis, F., Cleenwerck, I., Swings, J., Gottschal, J.C., Vancanneyt, M. (2002). Lactobacillus diolivorans sp. nov., a 1,2-propanediol-degrading bacterium isolated from aerobically stable maize silage. Int. J. Syst. Evol. Microbiol. 52, 639-646.	DSM 14421	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus farraginis*		Alcoholic Beverages	Escalente-Minakata, P., Blaschek, H.P., Barba se la Rosa, A.P., Santos De Leon-Rodriguez, A. (2008). Lett Appl Microbiol. Jun;46(6):626-30. Identification of yeast and bacteria involved in the mezcal fermentation of Agave salmiana.	DSM 18382	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus hilgardii*		Plant Based	Waldherr, F.W., Doll, V.M., Meissner, D., Vogel, R.F. (2010). Identification and characterization of a glucan-producing enzyme from Lactobacillus hilgardii TMW 1.828 involved in granule formation of water kefir. Food Microbiol. 2010 Aug;27(5):672-8.	ATCC 8290	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus hilgardii*		Alcoholic Beverages	Douglas, H.C., Cruess, W.V. (1936). Lactobacillus from california wine: Lactobacillus hilgardii. Food Res. 1, 113–119.	ATCC 8290	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus kefiri*		Dairy	Kandler, O., Kunath, P. (1983b). Lactobacillus kefir sp. nov., a component of the microflora of kefir. Syst. Appl. Microbiol. 4, 286–294.	ATCC 35411	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus kisonensis*		Plant Based	Watanabe, K., Fujimoto, J., Tomii, Y., Sasamoto, M., Makino, H., Kudo., Y., Okada, S. (2009). Lactobacillus kisonensis sp. nov., Lactobacillus otakiensis sp. nov., Lactobacillus rapi sp. nov. and Lactobacillus sunkii sp. nov., heterofermentative species isolated from sunki, a traditional Japanese pickle. Int. J. Syst. Evol. Microbiol. 59, 754-760.	DSM 19906	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus otakiensis*		Plant Based	Watanabe, K., Fujimoto, J., Tomii, Y., Sasamoto, M., Makino, H., Kudo., Y., Okada, S. (2009). Lactobacillus kisonensis sp. nov., Lactobacillus otakiensis sp. nov., Lactobacillus rapi sp. nov. and Lactobacillus sunkii sp. nov., heterofermentative species isolated from sunki, a traditional Japanese pickle. Int. J. Syst. Evol. Microbiol. 59, 754-760.	DSM 19908	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus parabuchneri*		Dairy	Henri-Dubernet, S., Desmasures, N., Guéguen, M. (2008). Diversity and dynamics of lactobacilli populations during ripening of RDO Camembert cheese. Can J Microbiol. 2008 Mar;54(3):218-28.	NCIMB 8838	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus parabuchneri*		Bakery	Farrow, J.A.E., Phillips, B.A., Collins, M.D. (1988). Nucleic acid studies on some heterofermentative lactobacilli: description of Lactobacillus malefermentans sp. nov. and Lactobacillus parabuchneri sp. nov. FEMS Microbiol. Lett. 55, 163-168.	NCIMB 8838	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus parafarraginis*		Dairy	Zanirati, D.F., Abatemarco, M.Jr., Sandes, S.H. de C., Nicoli, J.R., Nunes, A.C., Neumann, E. (2015). Selection of lactic acid bacteria from Brazilian kefir grains for potential use as starter or probiotic cultures. Anaerobe 32, 70-76.	DSM 18390	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus parafarraginis*		Plant Based	Wu, J., Du, R., Gao, M., Sui, Y., Xiu, L. and Wang, X. (2014). Naturally Occurring Lactic Acid Bacteria Isolated from Tomato Pomace Silage, Asian Australas. J. Anim. Sci. 27, 648-657. Montaño, A., Sánchez, A.H., Casado, F.J., Beato, V.M., Castro, A. (2013). Degradation of ascorbic acid and potassium sorbate by different Lactobacillus species isolated from packed green olives. Food Microbiology 34, 7-11.	DSM 18390	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus parakefiri*		Dairy	Takizawa, S., Kojima, S., Tamura, S., Fujinaga, S., Benno, Y., Nakase, T. (1994). Lactobacillus kefirgranum sp. nov. and Lactobacillus parakefir sp. nov., two new species from kefir grains. Int. J. Syst. Bacteriol. 44, 435–439.	ATCC 51648	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus rapi*		Plant Based	Watanabe, K., Fujimoto, J., Tomii, Y., Sasamoto, M., Makino, H., Kudo., Y., Okada, S. (2009). Lactobacillus kisonensis sp. nov., Lactobacillus otakiensis sp. nov., Lactobacillus rapi sp. nov. and Lactobacillus sunkii sp. nov., heterofermentative species isolated from sunki, a traditional Japanese pickle. Int. J. Syst. Evol. Microbiol. 59, 754-760.	DSM 19907	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Lentilactobacillus*	*Lentilactobacillus sunkii*		Plant Based	Watanabe, K., Fujimoto, J., Tomii, Y., Sasamoto, M., Makino, H., Kudo., Y., Okada, S. (2009). Lactobacillus kisonensis sp. nov., Lactobacillus otakiensis sp. nov., Lactobacillus rapi sp. nov. and Lactobacillus sunkii sp. nov., heterofermentative species isolated from sunki, a traditional Japanese pickle. Int. J. Syst. Evol. Microbiol. 59, 754-760.	DSM 19904	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc carnosum*		Meat	Amaretti, A., Schlundt, J. et al. (2020). Draft genome sequences of 12 Leuconostoc carnosum strains isolated from cooked ham packaged in a modified atmosphere and from fresh sausages. Microbiol Resour Announc. 9, e1247–e1219. doi: 10.1128/MRA.01247-19	ATCC 49367	Shaw, B.G., Harding, C.D. (1989). Leuconostoc gelidum sp. nov and sp. nov. Leuconostoc gelidum from chillstored meats. Int. J. Syst. Bacteriol. 39, 217–223.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc carnosum*		Seafood	Jeppesen, V.F. and Huss, H.H. (1994). Characteristics and antagonistic activity of LAB isolated from chilled fish products IJFM 18 p305-320	ATCC 49367	Shaw, B.G., Harding, C.D. (1989). Leuconostoc gelidum sp. nov and sp. nov. Leuconostoc gelidum from chillstored meats. Int. J. Syst. Bacteriol. 39, 217–223.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc carnosum*		Plant Based	Jung, J.Y. et al. (2013). Metatranscriptomic analysis of lactic acid bacterial gene expression during kimchi fermentation. Int. J. Food Microbiol., 163, 171-179. Yamaner, C.I., Sezen, I.Y. and Tanriseven, A. (2010). Selection of psychrotrophic Leuconostoc spp. from native fruits, and studies on their dextransucrases. Food Sci. Biotechnol., 19, 175-184.	ATCC 49367	Shaw, B.G., Harding, C.D. (1989). Leuconostoc gelidum sp. nov and sp. nov. Leuconostoc gelidum from chillstored meats. Int. J. Syst. Bacteriol. 39, 217–223.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc carnosum*		Plant Based	Gu, J. et al. (2018). Biogenic amines content and assessment of bacterial and fungal diversity in stinky tofu - A traditional fermented soy curd. LWT, 88, 26-34.	ATCC 49367	Shaw, B.G., Harding, C.D. (1989). Leuconostoc gelidum sp. nov and sp. nov. Leuconostoc gelidum from chillstored meats. Int. J. Syst. Bacteriol. 39, 217–223.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Dairy	Kim, M.J., Lee, H.W., Lee, M.E., Roh, S.W., Kim, T.W. (2019). Mixed starter of Lactococcus lactis and Leuconostoc citreum for extending kimchi shelf-life. J Microbiol. 2019 Jun;57(6):479-484. doi: 10.1007/s12275-019-9048-0. Epub 2019 May 27. PMID: 31073899	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Seafood	Paludan-Müller, C. (1999). Characterization of lactic acid bacteria isolated from a Thai low-salt fermented fish product and the role of garlic as substrate for fermentation. Int J Food Microbiol. 46, 219-29.	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Bakery	Milanović, V., Osimani, A., Garofalo, C., Belleggia, L., Maoloni, A., Cardinali, F., Mozzon, M., Foligni, R., Aquilanti, L., Clementi, F. (2020). Selection of cereal-sourced lactic acid bacteria as candidate starters for the baking industry. PLoS One. 2020 Jul 23;15(7):e0236190. doi: 10.1371/journal.pone.0236190. PMID: 32702068; PMCID: PMC7377444	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Plant Based	Choi, I.K., Jung, S.H., Kim, B.J., Park, S.Y., Kim, J., Han, H.U. (2003). Novel Leuconostoc citreum starter culture system for the fermentation of kimchi, a fermented cabbage product. Antonie Van Leeuwenhoek. 2003;84(4):247-53. doi: 10.1023/a:1026050410724. PMID: 14574101.	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Plant Based	Fang Feng, Qingqing Zhou, Yanfang Yang, Fangkun Zhao, Renpeng Du, Ye Han, Huazhi Xiao, Zhijiang Zhou. (2018). Characterization of highly branched dextran produced by Leuconostoc citreum B-2 from pineapple fermented product. International Journal of Biological Macromolecules, Volume 113, 2018, Pages 45-50,	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc citreum*		Alcoholic Beverages	Escalante, A., Giles-Gómez, M., Esquivel Flores, G., Matus Acuña, V., Moreno-Terrazas, R., López-Munguía, A., Lappe-Oliveras, P. (2012). Pulque Fermentation. In Handb. Plant-Based Fermented Food Beverage Technol., Second Edition. Edited by: Hui YH. CRC Press, Boca Raton, FL; 2012:691-706.	ATCC 13146	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides sp. nov. Int. J. Syst. Bacteriol. 39, 279-283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc fallax*		Plant Based	Barrangou, R. (2002). Identification and characterization of Leuconostoc fallax strains isolated from an industrial sauerkraut fermentation. Appl Environ Microbiol. 68, 2877-84.	ATCC 700006	Martinez-Murcia, A.J., Collins, M.D. (1991). A phylogenetic analysis of an atypical leuconostoc: description of Leuconostoc fallax sp. nov. FEMS Microbiol. Lett. 82, 55-60. VL 40.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc holzapfelii*		Plant Based	De Bruyne, K., Schillinger, U., Caroline, L., Boehringer, B., Cleenwerck, I., Vancanneyt, M., De Vuys, L., Franz, C.M.A.P., Vandamme, P. (2007). Leuconostoc holzapfelii sp. nov., isolated from Ethiopian coffee fermentation and assessment of sequence analysis of housekeeping genes for delineation of Leuconostoc species. Int. J. Syst. Evol. Microbiol. 57, 2952-2959.	DSM 20189	De Bruyne, K., Schillinger, U., Caroline, L., Boehringer, B., Cleenwerck, I., Vancanneyt, M., De Vuys, L., Franz, C.M.A.P., Vandamme, P. (2007). Leuconostoc holzapfelii sp. nov., isolated from Ethiopian coffee fermentation and assessment of sequence analysis of housekeeping genes for delineation of Leuconostoc species. Int. J. Syst. Evol. Microbiol. 57, 2952-2959.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc holzapfelii*		Plant Based	Jeong, S.H., Lee, S.H., Jung, J.Y., Choi, E.J., Jeon, C.O. (2013). Microbial succession and metabolite changes during long-term storage of Kimchi. J Food Sci. 2013 May;78(5):M763-9. doi: 10.1111/1750-3841.12095. Epub 2013 Apr 3. PMID: 23550842	DSM 20189	De Bruyne, K., Schillinger, U., Caroline, L., Boehringer, B., Cleenwerck, I., Vancanneyt, M., De Vuys, L., Franz, C.M.A.P., Vandamme, P. (2007). Leuconostoc holzapfelii sp. nov., isolated from Ethiopian coffee fermentation and assessment of sequence analysis of housekeeping genes for delineation of Leuconostoc species. Int. J. Syst. Evol. Microbiol. 57, 2952-2959.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc holzapfelii*		Bakery	Alice V. Moroni, Elke K. Arendt, Fabio Dal Bello. (2011). Biodiversity of lactic acid bacteria and yeasts in spontaneously-fermented buckwheat and teff sourdoughs. Food Microbiology,Volume 28, Issue 3, 2011	DSM 20189	De Bruyne, K., Schillinger, U., Caroline, L., Boehringer, B., Cleenwerck, I., Vancanneyt, M., De Vuys, L., Franz, C.M.A.P., Vandamme, P. (2007). Leuconostoc holzapfelii sp. nov., isolated from Ethiopian coffee fermentation and assessment of sequence analysis of housekeeping genes for delineation of Leuconostoc species. Int. J. Syst. Evol. Microbiol. 57, 2952-2959.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc inhae*		Plant Based	Kim, B., Lee, J., Jang, J., Kim, J., Han, H. (2003). Leuconostoc inhae sp. nov., a lactic acid bacterium isolated from kimchi. Int. J. Syst. Evol. Microbiol. 53, 1123-1126.	DSM 15101	Kim, B., Lee, J., Jang, J., Kim, J., Han, H. (2003). Leuconostoc inhae sp. nov., a lactic acid bacterium isolated from kimchi. Int. J. Syst. Evol. Microbiol. 53, 1123-1126.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc kimchii*		Plant Based	Jung, J.Y., Jeong, J.W., Lee, S.Y., Jin, H.M., Choi, H.W., Ryu, B.G., Han, S.S., Kang, H.K., Chung, E.J., Choi, K.M. (2019). Complete Genome Sequence of Leuconostoc kimchii Strain NKJ218, Isolated from Homemade Kimchi. Microbiol Resour Announc. 2019 Jul 3;8(27):e00367-19. doi: 10.1128/MRA.00367-19. PMID: 31270190; PMCID: PMC6606904	IMSNU 11154	Kim, J., Chun, J., Han, H.U. (2000). Leuconostoc kimchii sp. nov., a new species from kimchi. Int. J. Syst. Evol. Microbiol. 50, 1915-1919.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc kimchii*		Alcoholic Beverages	Torres-Rodríguez, I., Rodríguez-Alegría, M.E., Miranda-Molina, A. et al. (2014). Screening and characterization of extracellular polysaccharides produced by Leuconostoc kimchii isolated from traditional fermented pulque beverage. SpringerPlus 3, 583.	IMSNU 11154	Kim, J., Chun, J., Han, H.U. (2000). Leuconostoc kimchii sp. nov., a new species from kimchi. Int. J. Syst. Evol. Microbiol. 50, 1915-1919.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc lactis*		Dairy	Baroudi, A.A. (1976). Microorganisms and characteristics of laban. J Dairy Sci. 59, 200-2	ATCC 19256	Garvie, E.I. (1960). The genus Leuconostoc and its nomenclature. J. Dairy Res. 27, 283–292.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc lactis*		Alcoholic Beverages	Bora, S.S., Keot, J., Das, S., Sarma, K., Barooah, M. (2016). Metagenomics analysis of microbial communities associated with a traditional rice wine starter culture (Xaj-pitha) of Assam, India. 3 Biotech. 2016 Dec;6(2):153. doi: 10.1007/s13205-016-0471-1. Epub 2016 Jul 15. PMID: 28330225; PMCID: PMC4947050. Elizaquível, P., Pérez-Cataluña, A., Yépez, A., Aristimuño, C., Jiménez, E., Cocconcelli, P.S., Vignolo, G., Aznar, R. (2015). Pyrosequencing vs. culture-dependent approaches to analyze lactic acid bacteria associated to chicha, a traditional maize-based fermented beverage from Northwestern Argentina. Int J Food Microbiol. 2015 Apr 2;198:9-18. doi: 10.1016/j.ijfoodmicro.2014.12.027. Epub 2014 Dec 27. PMID: 25584777.	ATCC 19256	Garvie, E.I. (1960). The genus Leuconostoc and its nomenclature. J. Dairy Res. 27, 283–292.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc lactis*		Plant Based	Moon, J.S., Choi, H.S., Shin, S.Y., Noh, S.J., Jeon, C.O., Han, N.S. (2015). Genome sequence analysis of potential probiotic strain Leuconostoc lactis EFEL005 isolated from kimchi. J Microbiol. 2015 May;53(5):337-42. doi: 10.1007/s12275-015-5090-8. Epub 2015 May 3. PMID: 25935305. Saravanan, C., Shetty, P.K. (2015). Isolation and characterization of exopolysaccharide from Leuconostoc lactis KC117496 isolated from idli batter. Int J Biol Macromol. 2016 Sep;90:100-6. doi: 10.1016/j.ijbiomac.2015.02.007. Epub 2015 Feb 14. PMID: 25687478. Chen, Y.S., Wu, H.C., Lo, H.Y., Lin, W.C., Hsu, W.H., Lin, C.W., Lin, P.Y., Yanagida, F. (2012). Isolation and characterisation of lactic acid bacteria from jiang-gua (fermented cucumbers), a traditional fermented food in Taiwan. J Sci Food Agric. 2012 Aug 15;92(10):2069-75. doi: 10.1002/jsfa.5583. Epub 2012 Jan 23. PMID: 22271629.	ATCC 19256	Garvie, E.I. (1960). The genus Leuconostoc and its nomenclature. J. Dairy Res. 27, 283–292.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp. *mesenteroides*	Dairy	De Pasquale, I., Di Cagno, R., Buchin, S., De Angelis, M., Gobbetti, M. (2019). Use of autochthonous mesophilic lactic acid bacteria as starter cultures for making Pecorino Crotonese cheese: Effect on compositional, microbiological and biochemical attributes. Food Res Int. 2019 Feb;116:1344-1356. doi: 10.1016/j.foodres.2018.10.024. Epub 2018 Oct 9. PMID: 30716924. Seixas, F.N., Rios, E.A., Martinez de Oliveira, A.L., Beloti, V., Poveda, J.M. (2018). Selection of Leuconostoc strains isolated from artisanal Serrano Catarinense cheese for use as adjuncts in cheese manufacture. J Sci Food Agric. 2018 Aug;98(10):3899-3906. doi: 10.1002/jsfa.8907. Epub 2018 Feb 26. PMID: 29364508. Benheddi, W., Hellal, A. (2019). Technological characterization and sensory evaluation of a traditional Algerian fresh cheese clotted with Cynara cardunculus L. flowers and lactic acid bacteria. J Food Sci Technol. 2019 Jul;56(7):3431-3438. doi: 10.1007/s13197-019-03828-0. Epub 2019 Jun 10. PMID: 31274911; PMCID: PMC6581988. Silva, L.F., Casella, T., Gomes, E.S., Nogueira, M.C., De Dea Lindner, J., Penna, A.L. (2015). Diversity of lactic acid bacteria isolated from Brazilian water buffalo mozzarella cheese. J Food Sci. 2015 Feb;80(2):M411-7. doi: 10.1111/1750-3841.12771. Epub 2015 Jan 16. PMID: 25597646.	ATCC 8293	Van Tieghem, P.E.L. (1878). Sur la gomme de sucrerie. Ann. Sci. Nat. Bot., 6e Ser. 67, 180–202.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp. *mesenteroides*	Plant Based	Papadelli, M., Zoumpopoulou, G., Georgalaki, M., Anastasiou, R., Manolopoulou, E., Lytra, I., Papadimitriou, K., Tsakalidou, E. (2015). Evaluation of Two Lactic Acid Bacteria Starter Cultures for the Fermentation of Natural Black Table Olives (Olea europaea L cv Kalamon). Pol J Microbiol. 2015;64(3):265-71. PMID: 26638534. Pedersen, C.S. (1962). Fermentation of the Yugoslavian pickled cabbage. Appl Microbiol. 10, 86-9. Jung, J.Y., Lee, S.H., Lee, S.H., Jeon, C.O. (2012). Complete genome sequence of Leuconostoc mesenteroides subsp. mesenteroides strain J18, isolated from kimchi. J Bacteriol. 2012 Feb;194(3):730-1. doi: 10.1128/JB.06498-11. PMID: 22247530; PMCID: PMC3264068.	ATCC 8293	Van Tieghem, P.E.L. (1878). Sur la gomme de sucrerie. Ann. Sci. Nat. Bot., 6e Ser. 67, 180–202.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp. *mesenteroides*	Alcoholic Beverages	Lonvaud-Funel, A. & Strasser de Saad, A.M. (1982). Purification and Properties of a Malolactic Enzyme from a Strain of Leuconostoc mesenteroides Isolated from Grapes, APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 43, No. 2, p 357-361 Mtshali, P.S., Divol, B., du Toit, M. (2012). PCR detection of enzyme-encoding genes in euconostoc mesenteroides strains of wine origin, World J Microbiol Biotechnol, V.28, p. 1443–1449	ATCC 8293	Van Tieghem, P.E.L. (1878). Sur la gomme de sucrerie. Ann. Sci. Nat. Bot., 6e Ser. 67, 180–202.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp. *mesenteroides*	Meat	Samelis, J., Maurogenakis, F. and Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int. J. Food Microbiol., 23, 179-196. Danilovic, B. et al. (2011). The characterisation of lactic acid bacteria during the fermentation of an artisan Serbian sausage (Petrovska Klobása). Meat Sci., 88, 668-674.	ATCC 8293	Van Tieghem, P.E.L. (1878). Sur la gomme de sucrerie. Ann. Sci. Nat. Bot., 6e Ser. 67, 180–202.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp.*cremoris*	Dairy	Frantzen, C.A., Kot, W., Pedersen, T.B., Ardö, Y.M., Broadbent, J.R., Neve, H., Hansen, L.H., Dal Bello, F., Østlie, H.M., Kleppen, H.P., Vogensen, F.K., Holo, H. (2017). Genomic Characterization of Dairy Associated Leuconostoc Species and Diversity of Leuconostocs in Undefined Mixed Mesophilic Starter Cultures. Front Microbiol. 2017 Feb 3;8:132. doi: 10.3389/fmicb.2017.00132. PMID: 28217118; PMCID: PMC5289962. Mainville, I., Robert, N., Lee, B., Farnworth, E.R. (2006). Polyphasic characterization of the lactic acid bacteria in kefir. Syst Appl Microbiol. 2006 Jan;29(1):59-68. doi: 10.1016/j.syapm.2005.07.001. Epub 2005 Aug 15. PMID: 16423657. Lazos, E.S. (1993). The fermentation of trahanas: a milk-wheat flour combination. Plant Foods Hum Nutr. 44, 45-62.	ATCC 19254	Garvie, E.I. (1983). Leuconostoc mesenteroides subsp. Cremoris (Knudsen and Sørensen) comb. nov. and Leuconostoc mesenteroides subsp. dextranicum Beijernick) comb. nov. Int. J. Syst. Bacteriol. 33, 118–119.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc mesenteroides*	*Leuconostoc mesenteroides* subsp.*dextranicum*	Dairy	Beukes, E.M., Bester, B.H., Mostert, J.F. (2001). The microbiology of South African traditional fermented milks. Int J Food Microbiol. 2001 Feb 15;63(3):189-97. doi: 10.1016/s0168-1605(00)00417-7. PMID: 11246902. Duan, Y., Tan, Z., Wang, Y., Li, Z., Li, Z., Qin, G., Huo, Y., Cai, Y. (2008). Identification and characterization of Lactic Acid Bacteria isolated from Tibetan Qula cheese. J Gen Appl Microbiol. 2008 Feb;54(1):51-60. doi: 10.2323/jgam.54.51. PMID: 18323681. Keenan, T.W. (1968). Production of acetic acid and other volatile compounds by Leucoostoc citrovorum and Leuconostoc dextranicum. Appl Microbiol. 16, 1881-5.	ATCC 19255	Garvie, E.I. (1983). Leuconostoc mesenteroides subsp. Cremoris (Knudsen and Sørensen) comb. nov. and Leuconostoc mesenteroides subsp. dextranicum Beijernick) comb. nov. Int. J. Syst. Bacteriol. 33, 118–119.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc palmae*		Alcoholic Beverages	Ehrmann, M.A., Freiding, S., Vogel, R.F. (2009). Leuconostoc palmae sp. nov., a novel lactic acid bacterium isolated from palm wine. Int. J. Syst. Evol. Microbiol. 59, 943-947.	DSM 21144	Ehrmann, M.A., Freiding, S., Vogel, R.F. (2009). Leuconostoc palmae sp. nov., a novel lactic acid bacterium isolated from palm wine. Int. J. Syst. Evol. Microbiol. 59, 943-947.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc pseudomesenteroides*		Dairy	Garofalo, C., Ferrocino, I., Reale, A., Sabbatini, R., Milanović, V., Alkić-Subašić, M., Boscaino, F., Aquilanti, L., Pasquini, M., Trombetta, M.F., Tavoletti, S., Coppola, R., Cocolin, L., Blesić, M., Sarić, Z., Clementi, F., Osimani, A. (2020). Study of kefir drinks produced by backslopping method using kefir grains from Bosnia and Herzegovina: Microbial dynamics and volatilome profile. Food Res Int. 2020 Nov;137:109369. doi: 10.1016/j.foodres.2020.109369. Epub 2020 Jun 1. PMID: 33233071. Câmara, S.P., Dapkevicius, A., Riquelme, C., Elias, R.B., Silva, C., Malcata, F.X., Dapkevicius, M. (2019). Potential of lactic acid bacteria from Pico cheese for starter culture development. Food Sci Technol Int. 2019 Jun;25(4):303-317. doi: 10.1177/1082013218823129. Epub 2019 Jan 15. PMID: 30646760. Frantzen, C.A., Kot, W., Pedersen, T.B., Ardö, Y.M., Broadbent, J.R., Neve, H., Hansen, L.H., Dal Bello, F., Østlie, H.M., Kleppen, H.P., Vogensen, F.K., Holo, H. (2017). Genomic Characterization of Dairy Associated Leuconostoc Species and Diversity of Leuconostocs in Undefined Mixed Mesophilic Starter Cultures. Front Microbiol. 2017 Feb 3;8:132. doi: 10.3389/fmicb.2017.00132. PMID: 28217118; PMCID: PMC5289962. Pedersen, T.B., Kot, W.P., Hansen, L.H., Sørensen, S.J., Broadbent, J.R., Vogensen, F.K., Ardö, Y. (2014). Genome Sequences of Two Leuconostoc pseudomesenteroides Strains Isolated from Danish Dairy Starter Cultures. Genome Announc. 2014 Jun 5;2(3):e00484-14. doi: 10.1128/genomeA.00484-14. PMID: 24903866; PMCID: PMC4047445. Callon, C., Millet, L., Montel, M.C. (2004). Diversity of lactic acid bacteria isolated from AOC Salers cheese. Journal of Dairy Research 71, 231-44. Abriouel, H., Martín-Platero, A., Maqueda, M., Valdivia, E., Martínez-Bueno, M. (2008). Biodiversity of the microbial community in a Spanish farmhouse cheese as revealed by culture-dependent and culture-independent methods. International Journal of Food Microbiology 127, 200-8. Sengun, I.Y., Nielsen, D.S., Karapinar, M., Jakobsen, M. (2009). Identification of lactic acid bacteria isolated from Tarhana, a traditional Turkish fermented food. International Journal of Food Microbiology 135, 105-11.	ATCC 12291	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides. Int. J. Syst. Bacteriol. 39, 279–283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc pseudomesenteroides*		Alcoholic Beverages	Zhou, Q., Feng, F., Yang, Y., Zhao, F., Du, R., Zhou, Z., Han, Y. (2018). Characterization of a dextran produced by Leuconostoc pseudomesenteroides XG5 from homemade wine. Int J Biol Macromol. 2018 Feb;107(Pt B):2234-2241. doi: 10.1016/j.ijbiomac.2017.10.098. Epub 2017 Oct 16. PMID: 29051095. Wang, Y., Pan, L., Han, Y., Zhou, Z. (2018). Purification, characterization and antioxidant activity of dextran produced by Leuconostoc pseudomesenteroides from homemade wine. Carbohydr Polym. 2018 Oct 15;198:529-536. doi: 10.1016/j.carbpol.2018.06.116. Epub 2018 Jun 30. Erratum in: Carbohydr Polym. 2019 Jul 15;216:331. PMID: 30093031. Bora, S.S., Keot, J., Das, S., Sarma, K., Barooah, M. (2016). Metagenomics analysis of microbial communities associated with a traditional rice wine starter culture (Xaj-pitha) of Assam, India. 3 Biotech. 2016 Dec;6(2):153. doi: 10.1007/s13205-016-0471-1. Epub 2016 Jul 15. PMID: 28330225; PMCID: PMC4947050.	ATCC 12291	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides. Int. J. Syst. Bacteriol. 39, 279–283.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Leuconostoc*	*Leuconostoc pseudomesenteroides*		Meat	Parente, E., Grieco, S., Crudele, M.A. (2001). Phenotypic diversity of lactic acid bacteria isolated from fermented sausages produced in Basilicata (Southern Italy). Journal of Applied Microbiology. 90, 943-52.	ATCC 12291	Farrow, J.A.E., Facklam, R.R., Collins, M.D. (1989). Nucleic acid homologies of some vancomycin-resistant leuconostocs and description of Leuconostoc citreum sp. nov. and Leuconostoc pseudomesenteroides. Int. J. Syst. Bacteriol. 39, 279–283.
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus acidifarinae*		Bakery	Vancanneyt, M., Neysens, P., De Wachter, M., Engelbeen, K., Snauwaert, C., Cleenwerck, I., Van der Meulen, R., Hoste, B., Tsakalidou, E., De Vuyst, L., Swings, J. (2005). Lactobacillus acidifarinae sp. nov. and Lactobacillus zymae sp. nov., from wheat sourdoughs. Int J Syst Evol Microbiol. 55, 615-620.	LMG 2220	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus acidifarinae*		Plant Based	Nakayama, J., Hoshiko, H., Fukuda, M., Tanaka, H., Sakamoto, N., Tanaka, S., Ohue, K., Sakai, K., Sonomoto, K. (2007). Molecular monitoring of bacterial community structure in long-aged nukadoko: pickling bed of fermented rice bran dominated by slow-growing lactobacilli. J Biosci Bioeng. 2007 Dec;104(6):481-9. doi: 10.1263/jbb.104.481. PMID: 18215635.	DSM 19394	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Bakery	Coda, R., Rizzello, C.G., Nigro, F., De Angelis, M., Arnault, P., Gobbetti, M. (2008). Long-term fungal inhibitory activity of water-soluble extracts of Phaseolus vulgaris cv. Pinto and sourdough lactic acid bacteria during bread storage. Appl Environ Microbiol. 2008 Dec;74(23):7391-8.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Meat	Benito, M.J., Serradilla, M.J., Ruiz-Moyano, S., Martín, A., Pérez-Nevado, F., Córdoba, M.G. (2008). Rapid differentiation of lactic acid bacteria from autochthonous fermentation of Iberian dry-fermented sausages. Meat Sci. 2008 Nov;80(3):656-61.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Plant Based	Kim, J.Y., Lee, M.Y., Ji, G.E., Lee, Y.S., Hwang, K.T. (2009). Production of gamma-aminobutyric acid in black raspberry juice during fermentation by Lactobacillus brevis GABA100. Int J Food Microbiol. 2009 Mar 15;130(1):12-6.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Plant Based	Barla, F., Koyanagi, T., Tokuda, N., Matsui, H., Katayama, T., Kumagai, H., Michihata, T., Sasaki, T., Tsuji, A., Enomoto, T. (2016). The γ-aminobutyric acid-producing ability under low pH conditions of lactic acid bacteria isolated from traditional fermented foods of Ishikawa Prefecture, Japan, with a strong ability to produce ACE-inhibitory peptides. Biotechnol Rep (Amst). 2016 Apr 9;10:105-110.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Dairy	La Rivière, J.W., Kooiman, P. (1967). Kefiran, a novel polysaccharide produced in the kefir grain by Lactobacillus brevis. Arch Mikrobiol. 59(1):269-78.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

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Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Plant Based	Pedersen, C.S., Niketic, G., Albury, M.N. (1962). Fermentation of the Yugoslavian pickled cabbage. Appl Microbiol. 10, 86-9.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Alcoholic Beverages	Pilone, G.J., Kunkee, R.E. and Webb A.D. (1966): Chemical Characterization of Wines Fermented with Various Malo-lactic Bacteria, APPLIED MICROBIOLOGY, Vol. 14, No. 4, p. 608-615. Pardo, I. and Zuniga, M (1992). Lactic Acid Bacteria in Spanish Red Rose and White Musts and Wines, JOURNAL OF FOOD SCIENCE, Vol. 57, No. 2, p. 392-396 S.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus brevis*		Alcoholic Beverages	De Cort, S., Kumara, H.M., Verachtert, H. (1994). Localization and Characterization of alpha-Glucosidase Activity in Lactobacillus brevis. Appl Environ Microbiol. 60(9):3074-8.	ATCC 14869	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus hammesii*		Bakery	Valcheva, R., Korakli, M., Onno, B., Prévost, H., Ivanova, I., Ehrmann, M.A., Dousset, X., Gänzle, M.G., Vogel, R.F. (2005). Lactobacillus hammesii sp. nov., isolated from French sourdough. Int. J. Syst. Evol. Microbiol. 55, 763-767.	DSM 16381	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus namurensis*		Bakery	Scheirlinck, I., Van der Meulen, R., Van Schoor, A., Cleenwerck, I., Huys, G., Vandamme, P., Devuyst, L., Vancanneyt, M. (2007). Lactobacillus namurensis sp. nov., isolated from a traditional Belgian sourdough. Int. J. Syst. Evol. Microbiol. 57, 223-227.	DSM 19117	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus parabrevis*		Dairy	Vancanneyt, M., Naser, S.M., Engelbeen, K., De Wachter, M., Van der Meulen, R., Cleenwerck, I., Hoste, B., De Vuyst, L., Swings, J. (2006). Reclassification of Lactobacillus brevis strains LMG 11494 and LMG 11984 as Lactobacillus parabrevis sp. nov. Int. J. Syst. Evol. Microbiol. 56, 1553-1557	ATCC 53295	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus parabrevis*		Plant Based	Pedersen, C.S., Niketic, G., Albury, M.N. (1962). Fermentation of the Yugoslavian pickled cabbage. Appl Microbiol. 10, 86-9.	ATCC 53295	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus senmaizukei*		Plant Based	Hiraga, K., Ueno,Y., Sukontasing, S., Tanasupawat, S., Oda, K. (2008). Lactobacillus senmaizukei sp. nov., isolated from Japanese pickle. Int. J. Syst. Evol. Microbiol. 58, 1625-1629.	NBRC 103853	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus spicheri*		Bakery	Meroth, C.B., Hammes, W.P., Hertel, C. (2004). Characterisation of the microbiota of rice sourdoughs and description of Lactobacillus spicheri sp. nov. Syst. Appl. Microbiol. 27, 151-159.	DSM 15429	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus zymae*		Plant Based	Cheng, L., Luo, J., Li, P., Yu, H., Huang, J., Luo, L. (2014). Microbial diversity and flavor formation in onion fermentation. Food Funct. 5(9):2338-47.	LMG 22198	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Levilactobacillus*	*Levilactobacillus zymae*		Bakery	De Vuyst, L., Vancanneyt, M. (2007). Biodiversity and identification of sourdough lactic acid bacteria. Food Microbiol. 2007 Apr;24(2):120-7. doi: 10.1016/j.fm.2006.07.005. Epub 2006 Sep 11. PMID: 17008154	LMG 22198	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus acidipiscis*		Dairy	Asteri, I.A., Robertson, N., Kagkli, D.M., Andrewes, P., Nychas, G., Coolbear, T., Holland, R., Crow, V., Tsakalidou. E. (2009). Technological and flavour potential of cultures isolated from traditional Greek cheeses – A pool of novel species and starters. International Dairy Journal 19, 595-604. Fontana, C., Cappa, F., Rebecchi, A., Cocconcelli, P.S. (2010). Surface microbiota analysis of Taleggio, Gorgonzola, Casera, Scimudin and Formaggio di Fossa Italian cheeses. International Journal of Food Microbiology 138, 205-21.	CIP 106750	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus acidipiscis*		Seafood	Tanasupawat, S., Shida, O., Okada, S., Komagata, K. (2000). Lactobacillus acidipiscis sp. nov. and Weissella thailandensis sp. nov., isolated from fermented fish in Thailand. International Journal of Systematic and Evolutionary Microbiology 50, 1479-85.	CIP 106750	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus fermentum*		Dairy	Randazzo, C.L., Torriani, S., Akkermans, A.D., de Vos, W.M., Vaughan, E.E. (2002). Diversity, dynamics, and activity of bacterial communities during production of an artisanal Sicilian cheese as evaluated by 16S rRNA analysis. Appl Environ Microbiol. 2002 Apr;68(4):1882-92.	ATCC 14931	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus fermentum*		Plant Based	Endo, A., Mizuno, H., Okada, S. (2008). Monitoring the bacterial community during fermentation of sunki, an unsalted, fermented vegetable traditional to the Kiso area of Japan. Lett Appl Microbiol. 2008 Sep;47(3):221-6.	ATCC 14931	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus fermentum*		Meat	Zhang, X., Kong, B., Xiong, Y.L. (2007). Production of cured meat color in nitrite-free Harbin red sausage by Lactobacillus fermentum fermentation. Meat Sci. 2007 Dec;77(4):593-8.	ATCC 14931	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus fermentum*		Plant Based	Aegerter, P., Dunlap, C. (1980). Culture of five commonly used Acid-producing bacteria on banana pulp. Appl Environ Microbiol. 1980 May;39(5):937-42.	ATCC 14931	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus murinus*		Plant Based	Wang, Z., Zhang, X.J., Zhou, G.Y., Wang, J.Y., Li-Hua, A.I., Song, P. (2008). Collection and standardized sequence of lactic acid bacteria in Sichuan areas for fermented pickles. Sichuan Food and Fermentation. 44(3): 5-8. (In Chinese)	ATCC 35020	Zheng, J., Wittouck, S., Salvetti, E. et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae[J]. Int J Syst Evol Microbiol, 2020, 70:2782-2858.
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus pobuzihii*		Plant Based	Chen, Y.S., Miyashita, M., Suzuki, K., Sato, H., Hsu, J.S., Yanagida, F. (2010). Lactobacillus pobuzihii sp. nov., isolated from pobuzihi (fermented cummingcordia). Int. J. Syst. Evol. Microbiol. 60, 1914-1917.	NBRC 103219	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus salivarius*		Alcoholic Beverages	Kačániová, M., Hleba, L., Pochop, J., Kádasi-Horáková, M., Fikselová, M., Rovná, K. (2012). Determination of wine microbiota using classical method, polymerase chain method and Step One Real-Time PCR during fermentation process. J Environ Sci Health B. 2012;47(6):571-8.	ATCC 11741	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus salivarius*		Dairy	Vasala, A., Panula, J., Neubauer, P. (2005). Efficient lactic acid production from high salt containing dairy by-products by Lactobacillus salivarius ssp. salicinius with pre-treatment by proteolytic microorganisms. Journal of Biotechnology 117, 421-431.	ATCC 11741	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Ligilactobacillus*	*Ligilactobacillus salivarius*		Plant Based	Coulin, P., Farah, Z., Assanvo, H., Spillmann, H., Puhan, Z. (2006). Characterisation of the microflora of attiéké, a fermented cassava product, during traditional small-scale preparation. Int J Food Microbiol. 106, 131-6.	ATCC 11741	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus fermentum*		Bakery	Khetarpaul, N., Chauhan, B.M. (1991). Biological utilisation of pearl millet flour fermented with yeasts and lactobacilli. Plant Foods Hum Nutr. 41, 309-19.	ATCC 14931	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus frumenti*		Plant Based	Müller, M.R.A., Ehrmann, M.A., Vogel, R.F. (2000). Lactobacillus frumenti sp. nov., a new lactic acid bacterium isolated from rye-bran fermentations with a long fermentation period. Int. J. Syst. Evol. Microbiol. 50, 2127-2133.	DSM 13145	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus mucosae*		Alcoholic Beverages	Vieira-Dalodé, G. (2007). Lactic acid bacteria and yeasts associated with gowé production from sorghum in Bénin. J Appl Microbiol. 103, 342-9.	DSM 13345	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus panis*		Bakery	Wiese, B.J., Strohmar, W., Rainey, F.A., Diekmann, H. (1996). Lactobacillus panis sp. nov., from sourdough with a long fermentation period. Int. J. Syst. Bacteriol. 46, 449-453.	DSM 6035	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus pontis*		Bakery	Vogel, R.F., Böcker, G., Stolz, P., Ehrmann, M., Fanta, D., Ludwig, W., Pot, B., Kersters, K., Schleifer, K.H., Hammes, W.P. (1994). Identification of lactobacilli from sourdough and description of Lactobacillus pontis sp. nov. Int. J. Syst. Bacteriol. 44, 223-229.	DSM 8475	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus reuteri*		Seafood	Saithong, P., Panthavee, W., Boonyaratanakornkit, M., Sikkhamondhol, C. (2010). Use of a starter culture of lactic acid bacteria in plaa-som, a Thai fermented fish. J Biosci Bioeng. 2010 Nov;110(5):553-7.	ATCC 23272	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus reuteri*		Bakery	Ehrmann, M.A., Vogel, R.F. (2005). Molecular taxonomy and genetics of sourdough lactic acid bacteria Trends in Food Science & Technology 16, 31-42.	ATCC 23272	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus reuteri*		Dairy	Reuter, G. (1997). Present and future of probiotics in Germany and in Central Europe. Biosci. Microflora, 16, 43-51.	ATCC 23272	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Limosilactobacillus*	*Limosilactobacillus secaliphilus*		Bakery	Ehrmann, M.A., Brandt, M., Stolz, P., Vogel, R.F., Korakli, M. (2007). Lactobacillus secaliphilus sp. nov., isolated from type II sourdough fermentation. Int. J. Syst. Evol. Microbiol. 57, 745-750.	DSM 17896	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus cacaonum*		Plant Based	De Bruyne, K., Camu, N., De Vuyst, L., Vandamme, P. (2009). Lactobacillus fabifermentans sp. nov. and Lactobacillus cacaonum sp. nov., isolated from Ghanaian cocoa fermentations. Int. J. Syst. Evol. Microbiol. 59, 7-12.	DSM 21116	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus ghanensis*		Plant Based	Nielsen, D.S., Schillinger, U., Franz, C.M.A.P., Bresciani, J., Amoa-Awua, W., Holzapfel, W.H., Jakobsen, M. (2007). Lactobacillus ghanensis sp. nov., a motile lactic acid bacterium isolated from Ghanaian cocoa fermentations. Int. J. Syst. Evol. Microbiol. 57, 1468-1472.	DSM 18630	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus hordei*		Plant Based	Gulitz, A., Stadie, J., Wenning, M., Ehrmann, M.A., Vogel, R.F. (2011). The microbial diversity of water kefir. Int J Food Microbiol. 2011 Dec 15;151(3):284-8.	UCC128 - DSM 19519 - JCM 16179 - LMG 24241	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus hordei*		Dairy	Hsieh, H.H., Wang, S.Y., Chen, T.L., Huang, Y.L., Chen, M.J. (2012). Effects of cow's and goat's milk as fermentation media on the microbial ecology of sugary kefir grains. Int J Food Microbiol. Jun 15;157(1):73-81.	UCC128 - DSM 19519 - JCM 16179 - LMG 24241	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Descriptionof 23 novel genera, emended description of the genusLactobacillus Beijerinck 1901, and union of Lactobacillaceaeand Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus hordei*		Alcoholic Beverages	Rouse, S., Canchaya, C., Van Sinderen, D. (2008). Lactobacillus hordei sp. nov., a bacteriocinogenic strain isolated from malted barley. Int. J. Syst. Evol. Microbiol. 58, 2013-2017.	UCC128 - DSM 19519 - JCM 16179 - LMG 24241	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus mali*		Alcoholic Beverages	König, H., Unden, G., Fröhlich, J. (2009). Biology of Microorganisms on Grapes, in Must and in Wine. Springer-Verlag DOI: 10.1007/978-3-540-85463-0	ATCC 27053	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus mali*		Alcoholic Beverages	König, H., Unden, G., Fröhlich, J. (2009). Biology of Microorganisms on Grapes, in Must and in Wine. Springer-Verlag DOI: 10.1007/978-3-540-85463-0 Couto, J.A., Hogg, T.A. (1994). Diversity of ethanol-tolerant lactobacilli isolated from Douro fortified wine: clustering and identification by numerical analysis of electrophoretic protein profiles. J of Appliied Bacteriology 76, 487-491.	ATCC 27053	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus nagelii*		Alcoholic Beverages	Laureys, D., De Vuyst, L. (2017). The water kefir grain inoculum determines the characteristics of the resulting water kefir fermentation process. J Appl Microbiol. 2017 Mar;122(3):719-732. doi: 10.1111/jam.13370. PMID: 27930854	ATCC 700692	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus nagelii*		Plant Based	Papalexandratou, Z., Camu, N., Falony, G., de Vuyst, L. (2011). comparison of the bacterial species diversity of spontaneous cocoa bean fermentations carried out at selected farms in Ivory Coast and Brazil. Food Microbiol 28 964-73.	ATCC 700692	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus oeni*		Alcoholic Beverages	Manes-Lazaro, R., Ferrer, S., Rossello-Mora, R., Pardo, I. (2009). Lactobacillus oeni sp. nov., from wine. Int. J. Syst. Evol. Microbiol. 59, 2010-2014.	DSM 19972	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Liquorilactobacillus*	*Liquorilactobacillus satsumensis*		Plant Based	Endo, A., Okada, S. (2005). Lactobacillus satsumensis sp. nov., isolated from mashes of shochu, a traditional Japanese distilled spirit made from fermented rice and other starchy materials. Int. J. Syst. Evol. Microbiol. 55, 83-85.	NRIC 0604	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Loigolactobacillus*	*Loigolactobacillus coryniformis*		Dairy	Hegazi, F.Z., Abo-Elnaga, I.G. (1980). Characters of Lactobacillus coryniformis, isolated from an Iraqi cheese. Zentralbl Bakteriol Naturwiss. 135, 205-11.	ATCC 25602	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Loigolactobacillus*	*Loigolactobacillus coryniformis*		Meat	Samelis, J., Maurogenakis, F. and Metaxopoulos, J. (1994). Characterisation of lactic acid bacteria isolated from naturally fermented Greek dry salami. Int. J. Food Microbiol., 23, 179-196.	ATCC 25602	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Oenococcus*	*Oenococcus oeni*		Alcoholic Beverages	Breniaux, M., Dutilh, L., Petrel, M., Gontier, E., Campbell-Sills, H., Deleris-Bou, M., Krieger, S., Teissedre, P.L., Jourdes, M., Reguant, C., Lucas, P. (2018). Adaptation of two groups of Oenococcus oeni strains to red and white wines: the role of acidity and phenolic compounds. J Appl Microbiol. 2018 Oct;125(4):1117-1127. doi: 10.1111/jam.13946. Epub 2018 Aug 16. PMID: 29904988	ATCC 23279 DSM 20252	Dicks, L.M. (1995). Proposal to reclassify Leuconostoc oenos as Oenococcus oeni [corrig.] gen. nov., comb. nov. Int J Syst Bacteriol. 45, 395-7.
Monera	*Firmicutes*	*Lactobacillaceae*	*Oenococcus*	*Oenococcus oeni*		Plant Based	Coton, M., Pawtowski, A., Taminiau, B., Burgaud, G., Deniel, F., Coulloumme-Labarthe, L., Fall, A., Daube, G., Coton, E. (2017). Unraveling microbial ecology of industrial-scale Kombucha fermentations by metabarcoding and culture-based methods. FEMS Microbiol Ecol. 2017 May 1;93(5). doi: 10.1093/femsec/fix048. PMID: 28430940.	ATCC 23279 DSM 20252	Dicks, L.M. (1995). Proposal to reclassify Leuconostoc oenos as Oenococcus oeni [corrig.] gen. nov., comb. nov. Int J Syst Bacteriol. 45, 395-7.
Monera	*Firmicutes*	*Lactobacillaceae*	*Paucilactobacillus*	*Paucilactobacillus suebicus*		Plant Based	Kleynmans, U., Heinzl, H., Hammes, W.P. (1989). Lactobacillus suebicus sp. nov., an obligately heterofermentative Lactobacillus species isolated from fruit mashes. Syst. Appl. Microbiol. 11, 267-271.	DSM 5007	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Paucilactobacillus*	*Paucilactobacillus vaccinostercus*		Plant Based	Papalexandratou, Z., Camu, N., Falony, G., de Vuyst, L. (2011). Comparison of the bacterial species diversity of spontaneous cocoa bean fermentations carried out at selected farms in Ivory Coast and Brazil. Food Microbiol 28 964-73.	ATCC 33310	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Paucilactobacillus*	*Paucilactobacillus vaccinostercus*		Plant Based	Arici, M., Coskun, F. (2001). Hardaliye: Fermented grape juice as a traditional Turkish beverage. Food Microbiology 18, 417–421.	ATCC 33310	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Paucilactobacillus*	*Paucilactobacillus vaccinostercus*		Plant Based	Abriouel, H., Benomar, N., Lucas, R., Gálvez, A. (2011). Culture-independent study of the diversity of microbial populations in brines during fermentation of naturally-fermented Aloreña green table olives. Int. J. Food Microbiol. Jan 5;144(3):487-96. doi: 10.1016/j.ijfoodmicro.2010.11.006.	ATCC 33310	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus acidilactici*		Dairy	Olajugbagbe, T.E., Elugbadebo, O.E., Omafuvbe, B.O. (2020). Probiotic potentials of Pediococuss acidilactici isolated from wara; A Nigerian unripened soft cheese. Heliyon. 2020 Sep 14;6(9):e04889. doi: 10.1016/j.heliyon.2020.e04889. PMID: 32984599; PMCID: PMC7498756. García-Cano, I., Rocha-Mendoza, D., Kosmerl, E., Jiménez-Flores, R. (2020). Purification and characterization of a phospholipid-hydrolyzing phosphoesterase produced by Pediococcus acidilactici isolated from Gouda cheese. J Dairy Sci. 2020 May;103(5):3912-3923. doi: 10.3168/jds.2019-17965. Epub 2020 Mar 5. PMID: 32147264. Morales-Estrada, A.I., Lopez-Merino, A., Gutierrez-Mendez, N., Ruiz, E.A., Contreras-Rodriguez, A. (2016). Partial Characterization of Bacteriocin Produced by Halotolerant Pediococcus acidilactici Strain QC38 Isolated from Traditional Cotija Cheese. Pol J Microbiol. 2016 Aug 26;65(3):279-285. doi: 10.5604/17331331.1215607. PMID: 29334047.	ATCC 33314 DSM 19927	Lindner, P. (1887). Über ein neues in Malzmaischen vorkommendes, milchsäurebildendes Ferment. Wochenschrift fur Brauerei 4, 437-440.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus acidilactici*		Meat	LEroy, F. (2006). Functional meat starter cultures for improved sausage fermentation. Int J Food Microbiol. 106, 270-85.	ATCC 33314 DSM 19927	Lindner, P. (1887). Über ein neues in Malzmaischen vorkommendes, milchsäurebildendes Ferment. Wochenschrift fur Brauerei 4, 437-440.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus acidilactici*		Bakery	Edema, M.O., Sanni, A.I. (2008). Functional properties of selected starter cultures for sour maize bread. Food Microbiol. Jun;25(4):616-25. doi: 10.1016/j.fm.2007.12.006. Epub 2008 Jan 29. PMID: 18456117.	ATCC 33314 DSM 19927	Lindner, P. (1887). Über ein neues in Malzmaischen vorkommendes, milchsäurebildendes Ferment. Wochenschrift fur Brauerei 4, 437-440.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus acidilactici*		Plant Based	Onda, T. et al. (2003). Analysis of lactic acid bacterial flora during Miso fermentation. Food Sci. Technol. Res., 9, 17-24.	ATCC 33314 DSM 19927	Lindner, P. (1887). Über ein neues in Malzmaischen vorkommendes, milchsäurebildendes Ferment. Wochenschrift fur Brauerei 4, 437-440.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus acidilactici*		Plant Based	FAO. (1998). Fermented fruits and vegetables: A global perspective-Chapter 2: Basic principles of fermentation. FAO Agricultural Services Bulletin No. 134. Li, X. et al. (2017). Characteristics of microbial community and aroma compounds in traditional fermentation of Pixian broad bean paste as compared to industrial fermentation. Int. J. Food Prop., 20, S2520-S2531. Simsek, Ö., Özel, S. and Con, A.H. (2017). Comparison of lactic acid bacteria diversity during the fermentation of Tarhana produced at home and on a commercial scale. Food Sci. Technol., 26, 181-187.	ATCC 33314 DSM 19927	Lindner, P. (1887). Über ein neues in Malzmaischen vorkommendes, milchsäurebildendes Ferment. Wochenschrift fur Brauerei 4, 437-440.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus damnosus*		Alcoholic Beverages	Walling, E., Gindreau, E., Lonvaud-Funel, A. (2005). A putative glucan synthase gene dps detected in exopolysaccharide-producing Pediococcus damnosus and Oenococcus oeni strains isolated from wine and cider. International Journal of Food Microbiology,Volume 98, Issue 1. 2005. Pages 53-62.	DSMZ 20331	Validation list no. 25. Int. J. Syst. Bacteriol. 38: 220-222. (1988). Back W. Zur taxonomie der gattung Pediococcus. The phenotype and genotype limits of the types of Pediococcus previously identified together with the description of a new sub-race which is detrimental to beer quality: Pediococcus inopinatus. Brauwissenschaft 31: 237-250, 312-320, 336-343, 1978.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus damnosus*		Alcoholic Beverages	Kajala, I., Bergsveinson, J., Friesen, V., Redekop, A., Juvonen, R., Storgårds, E., Ziola, B. (2018). Lactobacillus backii and Pediococcus damnosus isolated from 170-year-old beer recovered from a shipwreck lack the metabolic activities required to grow in modern lager beer. FEMS Microbiol Ecol. 2018 Jan 1;94(1). doi: 10.1093/femsec/fix152. PMID: 29126241	DSMZ 20331 ATCC 29358	FEMS Microbiol Lett. (1990). Aug;58(3):255-62. The phylogeny of Aerococcus and Pediococcus as determined by 16S rRNA sequence analysis: description of Tetragenococcus gen. nov. Collins MD, Williams AM, Wallbanks S.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus damnosus*		Alcoholic Beverages	Vigentini, I., Praz, A., Domeneghetti, D., Zenato, S., Picozzi, C., Barmaz, A., Foschino, R. (2016). Characterization of malolactic bacteria isolated from Aosta Valley wines and evidence of psychrotrophy in some strains. J Appl Microbiol. 2016 Apr;120(4):934-45. doi: 10.1111/jam.13080. PMID: 26820246. Lonvaud-Funel, A., Joyeux, A. and Ledoux, O. (1991). Specific enumeration of lactic acid bacteria in fermenting grape must and wine by colony hybridization with non-isotopic DNA Probes, Journal of Applied Bacteriology, Vol. 71, p. 501-509	DSMZ 20331 ATCC 29358	FEMS Microbiol Lett. (1990). Aug;58(3):255-62. The phylogeny of Aerococcus and Pediococcus as determined by 16S rRNA sequence analysis: description of Tetragenococcus gen. nov. Collins MD, Williams AM, Wallbanks S.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus inopinatus*		Plant Based	Park, J.M., Shin, J.H., Lee, D.W. et al. (2010). Identification of the lactic acid bacteria in Kimchi according to initial and over-ripened fermentation using PCR and 16S rRNA gene sequence analysis. Food Sci Biotechnol 19, 541–546.	DSMZ 20285 ATCC 49902	Validation list no. 25. Int. J. Syst. Bacteriol. 38: 220-222, (1988). Back W. Zur taxonomie der gattung Pediococcus. The phenotype and genotype limits of the types of Pediococcus previously identified together with the description of a new sub-race which is detrimental to beer quality: Pediococcus inopinatus. Brauwissenschaft 31: 237-250, 312-320, 336-343, 1978.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus inopinatus*		Alcoholic Beverages	Petri, A., Pfannebecker, J., Fröhlich, J., König, H. (2012). Fast identification of wine related lactic acid bacteria by multiplex PCR. Food Microbiol. 2013 Feb;33(1):48-54. doi: 10.1016/j.fm.2012.08.011. Epub 2012 Sep 12. PMID: 23122500. Dicks, L.M.T. and Endo, A. (2009). Taxonomic Status of Lactic Acid Bacteria in Wine and Key Characteristics to Differentiate Species, S. Afr. J. Enol. Vitic., Vol. 30, No. 1	DSMZ 20285 ATCC 49902	Validation list no. 25. Int. J. Syst. Bacteriol. 38: 220-222, (1988). Back W. Zur taxonomie der gattung Pediococcus. The phenotype and genotype limits of the types of Pediococcus previously identified together with the description of a new sub-race which is detrimental to beer quality: Pediococcus inopinatus. Brauwissenschaft 31: 237-250, 312-320, 336-343, 1978.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus inopinatus*		Dairy	El-Baradei, G., Delacroix-Buchet, A., Ogier, J.C. (2007). Biodiversity of bacterial ecosystems in traditional Egyptian Domiati cheese. Appl Environ Microbiol. 2007 Feb;73(4):1248-55. doi: 10.1128/AEM.01667-06. Epub 2006 Dec 22. PMID: 17189434; PMCID: PMC1828670.	DSMZ 20285 ATCC 49902	Validation list no. 25. Int. J. Syst. Bacteriol. 38: 220-222, (1988). Back W. Zur taxonomie der gattung Pediococcus. The phenotype and genotype limits of the types of Pediococcus previously identified together with the description of a new sub-race which is detrimental to beer quality: Pediococcus inopinatus. Brauwissenschaft 31: 237-250, 312-320, 336-343, 1978.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus parvulus*		Alcoholic Beverages	Arevalo-Villena, M., Bartowsky, E.J., Capone, D., Sefton, M.A. (2010). Production of indole by wine-associated microorganisms under oenological conditions.Food Microbiol 27(5):685-90. Edwards, C.G., Peterson, J.C., Boylston, T.D., Vasile, T.D. (1994). Interactions Between Leuconostoc oenos and Pediococcus spp. During Vinification of Red Wines, Am J Enol Vitic, Vol. 45, p. 49-55	ATCC 19371 DSM 20332	Gunther, H.L., White, H.R. (1961). The cultural and physiological characters of the pediococci. J. Gen. Microbiol. 26:185-197.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus parvulus*		Plant Based	Lucena-Padrós, H., Ruiz-Barba, J.L. (2019). Microbial biogeography of Spanish-style green olive fermentations in the province of Seville, Spain. Food Microbiol. Sep;82:259-268. doi: 10.1016/j.fm.2019.02.004. Epub 2019 Feb 20. PMID: 31027782. Abriouel, H., Benomar, N., Cobo, A., Caballero, N., Fernández Fuentes, M.Á., Pérez-Pulido, R., Gálvez, A. (2012). Characterization of lactic acid bacteria from naturally-fermented Manzanilla Aloreña green table olives. Food Microbiol. Dec;32(2):308-16. doi: 10.1016/j.fm.2012.07.006. Epub 2012 Jul 31. PMID: 22986194.	ATCC 19371 DSM 20332	Gunther, H.L., White, H.R. (1961). The cultural and physiological characters of the pediococci. J. Gen. Microbiol. 26:185-197.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Meat	Leroy, F. (2006). Functional meat starter cultures for improved sausage fermentation. Int J Food Microbiol. 106, 270-85.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Seafood	Paludan-Müller, C. (1999). Characterization of lactic acid bacteria isolated from a Thai low-salt fermented fish product and the role of garlic as substrate for fermentation. Int J Food Microbiol. 46, 219-29.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Plant Based	Xu, X., Luo, D., Bao, Y., Liao, X., Wu, J. (2018). Characterization of Diversity and Probiotic Efficiency of the Autochthonous Lactic Acid Bacteria in the Fermentation of Selected Raw Fruit and Vegetable Juices. Front Microbiol. 2018 Oct 23;9:2539. doi: 10.3389/fmicb.2018.02539. PMID: 30405588; PMCID: PMC6205992. Hong, S.W., Choi, Y.J., Lee, H.W., Yang, J.H., Lee, M.A. (2016). Microbial Community Structure of Korean Cabbage Kimchi and Ingredients with Denaturing Gradient Gel Electrophoresis. J Microbiol Biotechnol. 2016 Jun 28;26(6):1057-62. doi: 10.4014/jmb.1512.12035. PMID: 26907755	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Alcoholic Beverages	Rodriguez, A.V. and Manca de Nadra, M.C. (1994). Sugar and organic acid metabolism in mixed cultures of Pediococcus pentosaceus and Leuconostoc oenos isolated from wine, Journal of Applied Bacteriology, Journal of Applied Bacteriology, vol. 77, p. 61-66 Lui, H.C. & Lui, S.S.T. (1981) Effects of malo-lactic fermentative bacteria on the acidity of white wine, Taiwania, Vol. 26.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Alcoholic Beverages	Das, A.J., Das, M.J., Miyaji, T., Deka, S.C. (2019). Growth and metabolic characterization of four lactic acid bacteria species isolated from rice beer prepared in Assam, India. Access Microbiol. 2019 May 29;1(4):e000028. doi: 10.1099/acmi.0.000028. PMID: 32974521; PMCID: PMC7470291.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Dairy	Gantzias, C., Lappa, I.K., Aerts, M., Georgalaki, M., Manolopoulou, E., Papadimitriou, K., De Brandt, E., Tsakalidou, E., Vandamme, P. (2020). MALDI-TOF MS profiling of non-starter lactic acid bacteria from artisanal cheeses of the Greek island of Naxos. Int J Food Microbiol. 2020 Jun 16;323:108586. doi: 10.1016/j.ijfoodmicro.2020.108586. Epub 2020 Mar 9. PMID: 32199192. Guarrasi, V., Sannino, C., Moschetti, M., Bonanno, A., Di Grigoli, A., Settanni, L. (2017). The individual contribution of starter and non-starter lactic acid bacteria to the volatile organic compound composition of Caciocavallo Palermitano cheese. Int J Food Microbiol. 2017 Oct 16;259:35-42. doi: 10.1016/j.ijfoodmicro.2017.07.022. Epub 2017 Jul 31. PMID: 28783535.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Bakery	Gong, Y., Qi, X. (2020). A study revealing volatile aroma produced by Pediococcus pentosaceus in dough fermentation. Food Sci Nutr. 2020 Aug 3;8(9):5077-5085. doi: 10.1002/fsn3.1807. PMID: 32994968; PMCID: PMC7500783.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Plant Based	Onda, T. et al. (2003). Analysis of lactic acid bacterial flora during Miso fermentation. Food Sci. Technol. Res., 9, 17-24.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Pediococcus*	*Pediococcus pentosaceus*		Plant Based	FAO. (1998). Fermented fruits and vegetables: A global perspective-Chapter 2: Basic principles of fermentation. FAO Agricultural Services Bulletin No. 134.	ATCC 33316 DSM 20336	Mees, R.H. (1934). Onderzoekingen over de Biersarcina. Thesis. Technical University Delft, Holland, pp. 1-110.
Monera	*Firmicutes*	*Lactobacillaceae*	*Schleiferilactobacillus*	*Schleiferilactobacillus harbinensis*		Plant Based	Miyamoto, M., Seto, Y., Hao, D.H., Teshima, T., Sun, Y.B., Kabuki, T., Yao, L.B., Nakajima, H. (2005). Lactobacillus harbinensis sp. nov., consisted of strains isolated from traditional fermented vegetables 'Suan cai' in Harbin, Northeastern China and Lactobacillus perolens DSM 12745. Syst. Appl. Microbiol. 28, 688-694.	DSM 16991	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Schleiferilactobacillus*	*Schleiferilactobacillus perolens*		Dairy	Ongol, M.P. (2009). Main microorganisms involved in the fermentation of Ugandan ghee. Int J Food Microbiol. 133, 286-91. Henri-Dubernet, S. (2008). Diversity and dynamics of lactobacilli populations during ripening of RDO Camembert cheese. Can J Microbiol. 54, 218-228.	DSM 12744	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Schleiferilactobacillus*	*Schleiferilactobacillus perolens*		Plant Based	Miyamoto, M. (2005). Lactobacillus harbinensis sp. nov., consisted of strains isolated from traditional fermented vegetables 'Suan cai' in Harbin, Northeastern China and Lactobacillus perolens DSM 12745. Syst Appl Microbiol. 28, 688-94.	DSM 12744	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Secundilactobacillus*	*Secundilactobacillus collinoides*		Plant Based	Carr, J.G., Davies, P.A. (1972). The ecology and classification of strains of Lactobacillus collinoides nov. spec.: A bacterium commonly found in fermenting apple juice. Journal of Applied Bacteriology 35, 463-471.	ATCC 27612	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Secundilactobacillus*	*Secundilactobacillus malefermentans*		Alcoholic Beverages	Russell, C., Walker, T.K. (1953). Lactobacillus malefermentans n.sp., Isolated from Beer. J. gen. Microbiol. 8, 160-162.	ATCC 49373	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Secundilactobacillus*	*Secundilactobacillus paracollinoides*		Alcoholic Beverages	Suzuki, K., Funahashi, W., Koyanagi, M., Yamashita, H. (2004). Lactobacillus paracollinoides sp. nov., isolated from brewery environments. Int. J. Syst. Evol. Microbiol., 54, 115-117.	DSM 15502	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107
Monera	*Firmicutes*	*Lactobacillaceae*	*Secundilactobacillus*	*Secundilactobacillus similis*		Plant Based	Kitahara, M., Sakamoto, M., Benno, Y. (2010). Lactobacillus similis sp. nov., isolated from fermented cane molasses. Int. J. Syst. Evol. Microbiol. 60, 187-190.	JCM 2765	Zheng et al. (2020). A taxonomic note on the genus Lactobacillus: Description of 23 novel genera, emended description of the genus Lactobacillus Beijerinck 1901, and union of Lactobacillaceae and Leuconostocaceae Int. J. Syst. Evol. Microbiol. 2020;70:2782–2858 DOI 10.1099/ijsem.0.004107

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella beninensis*		Plant Based	Padonou, S.W., Schillinger, U., Nielsen, D.S., Franz, C.M.A.P., Hansen, M., Hounhouigan, J.D., Nago, M.C., Jakobsen, M. (2010). Weissella beninensis sp. nov., a motile lactic acid bacterium from submerged cassava fermentations, and emended description of the genus Weissella. Int. J. Syst. Evol. Microbiol. 60, 2193-2198.	DSM 22752	Padonou, S.W., Schillinger, U., Nielsen, D.S., Franz, C.M.A.P., Hansen, M., Hounhouigan, J.D., Nago, M.C., Jakobsen, M. (2010). Weissella beninensis sp. nov., a motile lactic acid bacterium from submerged cassava fermentations, and emended description of the genus Weissella. Int. J. Syst. Evol. Microbiol. 60, 2193-2198.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Plant Based	Ankaiah, D., Mitra, S., Srivastava, D., Sivagnanavelmurugan, M., Ayyanna, R., Jha, N., Venkatesan, A. (2021). Probiotic characterization of bacterial strains from fermented South Indian tomato pickle and country chicken intestine having antioxidative and antiproliferative activities. J Appl Microbiol. 2021 Jan 6. doi: 10.1111/jam.14991. Epub ahead of print. PMID: 33404172.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Bakery	Pontonio, E., Nionelli, L., Curiel, J.A., Sadeghi, A., Di Cagno, R., Gobbetti, M., Rizzello, C.G. (2015). Iranian wheat flours from rural and industrial mills: Exploitation of the chemical and technology features, and selection of autochthonous sourdough starters for making breads. Food Microbiol. 2015 May;47:99-110. doi: 10.1016/j.fm.2014.10.011. Epub 2014 Dec 9. PMID: 25583343. Bounaix, M.S., Robert, H., Gabriel, V., Morel, S., Remaud-Siméon, M., Gabriel, B., Fontagné-Faucher, C. (2010). Characterization of dextran-producing Weissella strains isolated from sourdoughs and evidence of constitutive dextransucrase expression. FEMS Microbiol Lett. 2010 Oct;311(1):18-26. doi: 10.1111/j.1574-6968.2010.02067.x. Epub 2010 Aug 16. PMID: 20722740.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Dairy	Yu, J., Wang, W.H., Menghe, B.L.G., Jiri, M.T., Wang, H.M., Liu, W.J., Bao, Q.H., Lu, Q., Zhang, J.C., Wang, F., Xu, H.Y., Sun, T.S., Zhang, H.P. (2011). Diversity of lactic acid bacteria associated with traditional fermented dairy products in Mongolia. J Dairy Sci. 94: 3229-41.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Meat	Ngoc Phan, Y.T., Tang, M.T., Minh Tran, T.T., Nguyen, V.H., Nguyen, T.H., Tsuruta, T., Nishino, N. (2017). Diversity of lactic acid bacteria in vegetable-based and meat-based fermented foods produced in the central region of Vietnam. AIMS Microbiol. 3: 61-70.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Seafood	Kopermsub, P., Yunchalard, S. (2010). Identification of lactic acid bacteria associated with the production of plaa-som, a traditional fermented fish product of Thailand. Int J Food Microbiol. 138: 200-4.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Plant Based	Rizzello, C.G., Coda, R., Wang, Y., Verni, M., Ilkka, K., Katina, K., Laitila, A. (2019). Characterization of indigenous Pediococcus pentosaceus, Leuconostoc kimchii, Weissella cibaria and Weissella confusa for faba bean bioprocessing. Int J Food Microbiol. 302: 24-34.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella cibaria*		Plant Based	Di Cagno, R., Minervini, G., Rizzello, C.G., De Angelis, M., Gobbetti, M. (2011). Effect of lactic acid fermentation on antioxidant, texture, color and sensory properties of red and green smoothies. Food Microbiol. 28: 1062-71.	LMG 17699 DSM 20196	Björkroth, K.J., Schillinger, U., Geisen, R., Weiss, N., Hoste, B., Holzapfel, W.H., Korkeala, H.J., Vandamme, P. (2002). Taxonomic study of Weissella confusa and description of Weissella cibaria sp. nov., detected in food and clinical samples. Int. J. Syst. Evol. Microbiol. 52, 141-148

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Bakery	Katina, K. (2009). In situ production and analysis of Weissella confusa dextran in wheat sourdough. Food Microbiol. 26(7):734-43	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603. https://www.dsmz.de/catalogues/details/culture/DSM-20196.html
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Seafood	Rodpai, R., Sanpool, O., Thanchomnang, T., Wangwiwatsin, A., Sadaow, L., Phupiewkham, W., Boonroumkaew, P., Intapan, P.M., Maleewong, W. (2021). Investigating the microbiota of fermented fish products (Pla-ra) from different communities of northeastern Thailand. PLoS One. 2021 Jan 14;16(1):e0245227. doi: 10.1371/journal.pone.0245227. PMID: 33444386; PMCID: PMC7808594.	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603. https://www.dsmz.de/catalogues/details/culture/DSM-20196.html
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Alcoholic Beverages	Pardo, I. and Zuniga, M. (1992). Lactic Acid Bacteria in Spanish Red Rose and White Musts and Wines, JOURNAL OF FOOD SCIENCE, Vol. 57, No. 2, p. 392-396	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603. https://www.dsmz.de/catalogues/details/culture/DSM-20196.html
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Dairy	Li, J., Huang, Q., Zheng, X., Ge, Z., Lin, K., Zhang, D., Chen, Y., Wang, B., Shi, X. (2020). Investigation of the Lactic Acid Bacteria in Kazak Cheese and Their Contributions to Cheese Fermentation. Front Microbiol. 11:228.	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Plant Based	Ouoba, L.I.I., Nyanga-Koumou, C.A.G., Parkouda, C., Sawadogo, H., Kobawila, S.C., Keleke, S., Diawara, B., Louembe, D., Sutherland, J.P. (2010). Genotypic diversity of lactic acid bacteria isolated from African traditional alkaline-fermented foods. J Appl Microbiol. 108: 2019-29.	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Plant Based	Mugula, J.K., Nnko, S.A.M., Narvhus, J.A., Sørhaug, T. (2003). Microbiological and fermentation characteristics of togwa, a Tanzanian fermented food. Int J Food Microbiol. 80: 187-99.	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella confusa*		Plant Based	Lee, J.-S., Heo, G.-Y., Lee, J.W., Oh, Y.-J., Park, J.A., Park, Y.-H., Pyun, Y.-R., Ahn, J.S. (2005). Analysis of kimchi microflora using denaturing gradient gel electrophoresis. Int J Food Microbiol. 102: 143-50.	ATCC 10881	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella fabaria*		Plant Based	De Bruyne, K., Camu, N., De Vuyst, L., Vandamme, P. (2010). Weissella fabaria sp. nov., from a Ghanaian cocoa fermentation. Int. J. Syst. Evol. Microbiol. 60, 1999-2005.	DSM 21416	De Bruyne, K., Camu, N., De Vuyst, L., Vandamme, P. (2010). Weissella fabaria sp. nov., from a Ghanaian cocoa fermentation. Int. J. Syst. Evol. Microbiol. 60, 1999-2005.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella ghanensis*		Plant Based	De Bruyne, K., Camu, N., Lefebvre, K., De Vuyst, L., Vandamme, P. (2008). Weissella ghanensis sp. nov., isolated from a Ghanaian cocoa fermentation. Int. J. Syst. Evol. Microbiol. 58, 2721-2725.	LMG 24286 DSM 19935	De Bruyne, K., Camu, N., Lefebvre, K., De Vuyst, L., Vandamme, P. (2008). Weissella ghanensis sp. nov., isolated from a Ghanaian cocoa fermentation. Int. J. Syst. Evol. Microbiol. 58, 2721-2725.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella hellenica*		Meat	Hu, Y., Zhang, L., Liu, Q., Wang, Y., Chen, Q., Kong, B. (2020). The potential correlation between bacterial diversity and the characteristic volatile flavour of traditional dry sausages from Northeast China. Food Microbiol. 2020 Oct;91:103505. doi: 10.1016/j.fm.2020.103505. Epub 2020 Apr 12. PMID: 32539975. Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.	DSM 7378	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella hellenica*		Plant Based	Kim, M.J., Seo, H.N., Hwang, T.S., Lee, S.H., Park, D.H. (2008). Characterization of exopolysaccharide (EPS) produced by Weissella hellenica SKkimchi3 isolated from kimchi. J Microbiol. 2008 Oct;46(5):535-41. doi: 10.1007/s12275-008-0134-y. Epub 2008 Oct 31. PMID: 18974955. Chen, Y.S., Wu, H.C., Lo, H.Y., Lin, W.C., Hsu, W.H., Lin, C.W., Lin, P.Y., Yanagida, F. (2012). Isolation and characterisation of lactic acid bacteria from jiang-gua (fermented cucumbers), a traditional fermented food in Taiwan. J Sci Food Agric. 2012 Aug 15;92(10):2069-75. doi: 10.1002/jsfa.5583. Epub 2012 Jan 23. PMID: 22271629.	DSM 7378	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella hellenica*		Dairy	Morea, M., Baruzzi, F., Cappa, F., Cocconcelli, P.S. (1998). Molecular characterization of the Lactobacillus community in traditional processing of Mozzarella cheese. Int J Food Microbiol. 43: 53-60.	DSM 7378	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella koreensis*		Plant Based	Lee, J.S., Lee, K.C., Ahn, J.S., Mheen, T.I., Pyun, Y.R., Park, Y.H. (2002). Weissella koreensis sp. nov., isolated from kimchi. Int. J. Syst. Evol. Microbiol. 52, 1257-1261.	KCTC 3621 DSM 15830	Lee, J.S., Lee, K.C., Ahn, J.S., Mheen, T.I., Pyun, Y.R., Park, Y.H. (2002). Weissella koreensis sp. nov., isolated from kimchi. Int. J. Syst. Evol. Microbiol. 52, 1257-1261.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella koreensis*		Bakery	Michel, E., Monfort, C., Deffrasnes, M., Guezenec, S., Lhomme, E., Barret, M., Sicard, D., Dousset, X., Onno, B. (2016) Characterization of relative abundance of lactic acid bacteria species in French organic sourdough by cultural, qPCR and MiSeq high-throughput sequencing methods. Int J Food Microbiol. 2016 Dec 19;239:35-43. doi: 10.1016/j.ijfoodmicro.2016.07.034. Epub 2016 Jul 29. PMID: 27539249.	KCTC 3621 DSM 15830	Lee, J.S., Lee, K.C., Ahn, J.S., Mheen, T.I., Pyun, Y.R., Park, Y.H. (2002). Weissella koreensis sp. nov., isolated from kimchi. Int. J. Syst. Evol. Microbiol. 52, 1257-1261.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella koreensis*		Seafood	Song, E.J., Lee, E.S., Park, S.L., Choi, H.J., Roh, S.W., Nam, Y.D. (2018). Bacterial community analysis in three types of the fermented seafood, jeotgal, produced in South Korea. Biosci Biotechnol Biochem. 2018 Aug;82(8):1444-1454. doi: 10.1080/09168451.2018.1469395. Epub 2018 May 9. PMID: 29742980.	KCTC 3621 DSM 15830	Lee, J.S., Lee, K.C., Ahn, J.S., Mheen, T.I., Pyun, Y.R., Park, Y.H. (2002). Weissella koreensis sp. nov., isolated from kimchi. Int. J. Syst. Evol. Microbiol. 52, 1257-1261.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Alcoholic Beverages	Huang, Z.R., Guo, W.L., Zhou, W.B., Li, L., Xu, J.X., Hong, J.L., Liu, H.P., Zeng, F., Bai, W.D., Liu, B., Ni, L., Rao, P.F., Lv XC. (2018). Microbial communities and volatile metabolites in different traditional fermentation starters used for Hong Qu glutinous rice wine. Food Res Int. 2019 Jul;121:593-603. doi: 10.1016/j.foodres.2018.12.024. Epub 2018 Dec 21. PMID: 31108786. Pardo, I. and Zuniga, M. (1992). Lactic Acid Bacteria in Spanish Red Rose and White Musts and Wines, Journal of Food Science, Vol. 57, No. 2, p. 392-395	ATCC 33313	Fusco, V., Quero, G.M., Cho, G.S., Kabisch, J., Meske, D., Neve, H., Bockelmann, W., Franz, C.M. (2015). The genus Weissella: taxonomy, ecology and biotechnological potential. Front Microbiol. 2015 Mar 17;6:155. doi: 10.3389/fmicb.2015.00155. PMID: 25852652; PMCID: PMC4362408.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Dairy	Shobharani, P., Agrawal, R. (2011). A potent probiotic strain from cheddar cheese. Indian J Microbiol. 2011 Jul;51(3):251-8. doi: 10.1007/s12088-011-0072-y. Epub 2011 Jan 29. PMID: 22753999; PMCID: PMC3209920.	ATCC 33313	Fusco, V., Quero, G.M., Cho, G.S., Kabisch, J., Meske, D., Neve, H., Bockelmann, W., Franz, C.M. (2015). The genus Weissella: taxonomy, ecology and biotechnological potential. Front Microbiol. 2015 Mar 17;6:155. doi: 10.3389/fmicb.2015.00155. PMID: 25852652; PMCID: PMC4362408.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Alcoholic Beverages	Hancioğlu, O., Karapinar, M. (1997). Microflora of Boza, a traditional fermented Turkish beverage. Int J Food Microbiol. 1997 Apr 15;35(3):271-4. doi: 10.1016/s0168-1605(96)01230-5. PMID: 9105937.	ATCC 33313	Fusco, V., Quero, G.M., Cho, G.S., Kabisch, J., Meske, D., Neve, H., Bockelmann, W., Franz, C.M. (2015). The genus Weissella: taxonomy, ecology and biotechnological potential. Front Microbiol. 2015 Mar 17;6:155. doi: 10.3389/fmicb.2015.00155. PMID: 25852652; PMCID: PMC4362408.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Meat	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.	ATCC 33313 DSM 20288	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Plant Based	Satish Kumar, R., Ragu Varman, D., Kanmani, P., Yuvaraj, N., Paari, K.A., Pattukumar, V., Arul, V. (2010). Isolation, Characterization and Identification of a Potential Probiont from South Indian Fermented Foods (Kallappam, Koozh and Mor Kuzhambu) and Its Use as Biopreservative. Probiotics Antimicrob Proteins. 2010 Oct;2(3):145-51. doi: 10.1007/s12602-010-9052-5. PMID: 26781237.	ATCC 33313 DSM 20288	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella paramesenteroides*		Plant Based	Bortolini, C., Patrone, V., Puglisi, E., Morelli, L. (2016). Detailed analyses of the bacterial populations in processed cocoa beans of different geographic origin, subject to varied fermentation conditions. Int J Food Microbiol. 2016 Nov 7;236:98-106. doi: 10.1016/j.ijfoodmicro.2016.07.004. Epub 2016 Jul 8. PMID: 27458718.	ATCC 33313 DSM 20288	Collins, M.D., Samelis, J., Metaxopoulos, J., Wallbanks, S. (1993). Taxonomic studies on some Leuconostoc-like organisms from fermented sausages: description of a new genus Weissella for the Leuconostoc paramesenteroides group of species. J. Appl. Bacteriol. 75, 595-603.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella thailandensis*		Seafood	Lee, S.H., Ku, H.J., Ahn, M.J., Hong, J.S., Lee, S.H., Shin, H., Lee, K.C., Lee, J.S., Ryu, S., Jeon, C.O., Lee, J.H. (2015). Weissella jogaejeotgali sp. nov., isolated from jogae jeotgal, a traditional Korean fermented seafood. Int J Syst Evol Microbiol. 2015 Dec;65(12):4674-4681. doi: 10.1099/ijsem.0.000631. Epub 2015 Sep 24. PMID: 26410078. Tanasupawat, S., Shida, O., Okada, S., Komagata, K. (2000). Lactobacillus acidipiscis sp. nov. and Weissella thailandensis sp. nov., isolated from fermented fish in Thailand. International Journal of Systematic and Evolutionary Microbiology 50, 1479-85.	JCM 10695 DSM 15832	Kwak, M.J., Choi, S.B., Kim, B.Y., Chun, J. (2019). Genome-based reclassification of Weissella jogaejeotgali as a later heterotypic synonym of Weissella thailandensis. Int J Syst Evol Microbiol 2019; 69:3672-3675. Oren A, Garrity GM. Notification list. Notification that new names and new combinations have appeared in volume 69, part 12 of the IJSEM. Int J Syst Evol Microbiol 2020; 70:1447-1449.
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella thailandensis*		Dairy	Li, Y.Q., Tian, W.L., Gu, C.T. (2020). Weissella sagaensis sp. nov., isolated from traditional Chinese yogurt. Int J Syst Evol Microbiol. 2020 Apr;70(4):2485-2492. doi: 10.1099/ijsem.0.004062. Epub 2020 Feb 25. PMID: 32100692. Morales, F., Morales, J.I., Hernández, C.H., Hernández-Sánchez, H. (2011). Isolation and partial characterization of halotolerant lactic acid bacteria from two Mexican cheeses. Appl Biochem Biotechnol. 2011 Jul;164(6):889-905. doi: 10.1007/s12010-011-9182-6. Epub 2011 Feb 16. PMID: 21327742.	JCM 10695 DSM 15832	Kwak, M.J., Choi, S.B., Kim, B.Y., Chun, J. (2019). Genome-based reclassification of Weissella jogaejeotgali as a later heterotypic synonym of Weissella thailandensis. Int J Syst Evol Microbiol 2019; 69:3672-3675. Oren A, Garrity GM. Notification list. Notification that new names and new combinations have appeared in volume 69, part 12 of the IJSEM. Int J Syst Evol Microbiol 2020; 70:1447-1449.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Lactobacillaceae*	*Weissella*	*Weissella thailandensis*		Meat	Juárez-Castelán, C., García-Cano, I., Escobar-Zepeda, A., Azaola-Espinosa, A., Álvarez-Cisneros, Y., Ponce-Alquicira, E. (2019). Evaluation of the bacterial diversity of Spanish-type chorizo during the ripening process using high-throughput sequencing and physicochemical characterization. Meat Sci. 150: 7-13.	JCM 10695 - DSM 15832	Kwak, M.J., Choi, S.B., Kim, B.Y., Chun, J. (2019) Genome-based reclassification of Weissella jogaejeotgali as a later heterotypic synonym of Weissella thailandensis. Int J Syst Evol Microbiol 2019; 69:3672-3675. Oren A, Garrity GM. Notification list. Notification that new names and new combinations have appeared in volume 69, part 12 of the IJSEM. Int J Syst Evol Microbiol 2020; 70:1447-1449.
Monera	*Firmicutes*	*Staphylococcaceae*	*Macrococcus*	*Macrococcus caseolyticus*		Meat	Bhutia, M.O., Thapa, N., Tamang, J.P. (2021). Molecular Characterization of Bacteria, Detection of Enterotoxin Genes, and Screening of Antibiotic Susceptibility Patterns in Traditionally Processed Meat Products of Sikkim, India. Front Microbiol. 2021 Jan 11;11:599606. doi: 10.3389/fmicb.2020.599606. PMID: 33505372; PMCID: PMC7830132. Catalase-positive cocci in fermented sausage: Variability due to different pork breeds, breeding systems and sausage production technology. Food Microbiol. 2012 Apr;29(2):178-86. doi: 10.1016/j.fm.2011.09.005. Epub 2011 Sep 22. PMID: 22202871.	ATCC 13548 DSM 20597	Kloos, W.E., Ballard, D.N., George, C.G., Webster, J.A., Hubner, R.J., Ludwig, W., Schleifer, K.H., Fiedler, F., Schubert, K. (1998). Delimiting the genus Staphylococcus through description of Macrococcus caseolyticus gen. nov., comb. nov. and Macrococcus equipercicus sp. nov., Macrococcus bovicus sp. nov. and Macrococcus carouselicus sp. nov. Int. J. Syst. Bacteriol. 48, 859-877.
Monera	*Firmicutes*	*Staphylococcaceae*	*Macrococcus*	*Macrococcus caseolyticus*		Dairy	Martins, M.C.F., Freitas, R., Deuvaux, J.C., Eller, M.R., Nero, L.A., Carvalho, A.F. (2018). Bacterial diversity of artisanal cheese from the Amazonian region of Brazil during the dry and rainy seasons. Food Res Int. 2018 Jun;108:295-300. doi: 10.1016/j.foodres.2018.03.060. Epub 2018 Mar 22. PMID: 29735061. Bhowmik, T., Marth, E.H. (1990). Role of Micrococcus and Pediococcus species in cheese ripening. J. Dairy Sci 73, 859-866.	ATCC 13548 DSM 20597	Kloos, W.E., Ballard, D.N., George, C.G., Webster, J.A., Hubner, R.J., Ludwig, W., Schleifer, K.H., Fiedler, F., Schubert, K. (1998). Delimiting the genus Staphylococcus through description of Macrococcus caseolyticus gen. nov., comb. nov. and Macrococcus equipercicus sp. nov., Macrococcus bovicus sp. nov. and Macrococcus carouselicus sp. nov. Int. J. Syst. Bacteriol. 48, 859-877.
Monera	*Firmicutes*	*Staphylococcaceae*	*Macrococcus*	*Macrococcus caseolyticus*		Seafood	Dai, Z., Li, Y., Wu, J., Zhao, Q. (2013). Diversity of lactic acid bacteria during fermentation of a traditional Chinese fish product, Chouguiyu (stinky mandarinfish). J Food Sci. 2013 Nov;78(11):M1778-83. doi: 10.1111/1750-3841.12289. PMID: 24245896.	ATCC 13548 DSM 20597	Kloos, W.E., Ballard, D.N., George, C.G., Webster, J.A., Hubner, R.J., Ludwig, W., Schleifer, K.H., Fiedler, F., Schubert, K. (1998). Delimiting the genus Staphylococcus through description of Macrococcus caseolyticus gen. nov., comb. nov. and Macrococcus equipercicus sp. nov., Macrococcus bovicus sp. nov. and Macrococcus carouselicus sp. nov. Int. J. Syst. Bacteriol. 48, 859-877.
Monera	*Firmicutes*	*Staphylococcaceae*	*Mammaliicoccus*	*Mammaliicoccus fleurettii*		Dairy	Vernozy-Rozand, C., Mazuy-Cruchaudet, C., Meugnier, H., Bes, M., Lasne, Y., Fiedler, F., Etienne, J., Freney, J. (2000). Staphylococcus fleurettii sp. nov., isolated from goat's milk cheeses. Int. J. Syst. Evol. Microbiol. 50, 1521-1527.	CIP 106114 DSM 13212	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Staphylococcaceae*	*Mammaliicoccus*	*Mammaliicoccus sciuri*		Dairy	Ruaro, A., Andrighetto, C., Torriani, S., Lombardi, A. (2012). Biodiversity and characterization of indigenous coagulase-negative staphylococci isolated from raw milk and cheese of North Italy. Food Microbiol. 2013 May;34(1):106-11. doi: 10.1016/j.fm.2012.11.013. Epub 2012 Dec 4. PMID: 23498185. O'Halloran, R. (1998). Purification of an extracellular proteinase from Staphylococcus sciuri found on the surface of Tilsit cheese. Biochem Soc Trans. 26, S29.	ATCC 29062 DSM 20345	Cogan, T.M., Goerges, S., Gelsomino, R., Larpin, S., Hohenegger, M., Bora, N., Jamet, E., Rea, M.C., Mounier, J., Vancanneyt, M., Guéguen, M., Desmasures, N., Swings, J., Goodfellow, M., Ward, A.C., Sebastiani, H., Irlinger, F., Chamba, J.F., Beduhn, R., Scherer, S. (2014). Biodiversity of the Surface Microbial Consortia from Limburger, Reblochon, Livarot, Tilsit, and Gubbeen Cheeses. Microbiol Spectr. 2014 Feb;2(1):CM-0010-2012. doi: 10.1128/microbiolspec.CM-0010-2012. PMID: 26082119.
Monera	*Firmicutes*	*Staphylococcaceae*	*Mammaliicoccus*	*Mammaliicoccus vitulinus*		Dairy	Bannerman, J.A., Hubner, R.J., Ballard, D.N., Cole, E.M., Bruce, J.L., Fiedler, F., Schubert, K., Kloos, W.E. (1994). Identification of the Staphylococcus sciuri species group with EcoRI fragments containing rRNA sequences and description of Staphylococcus vitulus sp. nov. Int. J. Syst. Bacteriol. 44, 454-460.	ATCC 51145 DSM 15615	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.
Monera	*Firmicutes*	*Staphylococcaceae*	*Mammaliicoccus*	*Mammaliicoccus vitulinus*		Meat	Palavecino Prpich, N.Z., Garro, O.A., Romero, M., Judis, M.A., Cayré, M.E., Castro, M.P. (2016). Evaluation of an autochthonous starter culture on the production of a traditional dry fermented sausage from Chaco (Argentina) at a small-scale facility. Meat Sci. 2016 May;115:41-4. doi: 10.1016/j.meatsci.2016.01.005. Epub 2016 Jan 19. PMID: 26820805. Bannerman, J.A., Hubner, R.J., Ballard, D.N., Cole, E.M., Bruce, J.L., Fiedler, F., Schubert, K., Kloos, W.E. (1994). Identification of the Staphylococcus sciuri species group with EcoRI fragments containing rRNA sequences and description of Staphylococcus vitulus sp. nov. Int. J. Syst. Bacteriol. 44, 454-460.	ATCC 51145 DSM 15615	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.
Monera	*Firmicutes*	*Staphylococcaceae*	*Mammaliicoccus*	*Mammaliicoccus vitulinus*		Plant Based	Nam, Y.-D., Chung, W.-H. and Lim, S.-I. (2012). Draft genome sequence of Staphylococcus vitulinus F1028, a strain isolated from a block of fermented soybean. J. Bacteriol., 194, 5961-5962.	ATCC 51145 DSM 15615	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.

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Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus carnosus*		Dairy	Morea, M., Baruzzi, F., Cocconcelli, P.S. (1999). Molecular and physiological characterization of dominant bacterial populations in traditional mozzarella cheese processing. J Appl Microbiol. 1999 Oct;87(4):574-82. doi: 10.1046/j.1365-2672.1999.00855.x. PMID: 10583686.	ATCC 51365	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus carnosus*		Plant Based	Feng, Z., Gao, W., Ren, D., Chen, X., Li, J.J. (2013). Evaluation of bacterial flora during the ripening of Kedong sufu, a typical Chinese traditional bacteria-fermented soybean product. J Sci Food Agric. 2013 Apr;93(6):1471-8. doi: 10.1002/jsfa.5918. Epub 2013 Feb 11. PMID: 23400969.	ATCC 51365	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus carnosus*		Seafood	Devi, K.R., Deka, M., Jeyaram, K. (2015). Bacterial dynamics during yearlong spontaneous fermentation for production of ngari, a dry fermented fish product of Northeast India. Int J Food Microbiol. 2015 Apr 16;199:62-71. doi: 10.1016/j.ijfoodmicro.2015.01.004. Epub 2015 Jan 10. PMID: 25637876.	ATCC 51365	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus carnosus*		Meat	Löfblom, J., Rosenstein, R., Nguyen, M.T., Ståhl, S., Götz, F. (2017). Staphylococcus carnosus: from starter culture to protein engineering platform. Appl Microbiol Biotechnol. 2017 Dec;101(23-24):8293-8307. doi: 10.1007/s00253-017-8528-6. Epub 2017 Oct 2. PMID: 28971248; PMCID: PMC5694512	ATCC 51365	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802.

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Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus cohnii*		Dairy	Deetae, P. (2007). Production of volatile aroma compounds by bacterial strains isolated from different surface-ripened French cheeses. Appl Microbiol Biotechnol. 76(5):1161-71.	ATCC 29974 DSM 20260	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802. Lavecchia, A., Chiara, M., De Virgilio, C., Manzari, C., Pazzani, C., Horner, D., Pesole, G., Placido, A. (2021). Comparative genomics suggests a taxonomic revision of the Staphylococcus cohnii species complex. Genome Biol Evol. 2021 Feb 12:evab020. doi: 10.1093/gbe/evab020. Epub ahead of print. PMID: 33576800.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus cohnii*		Meat	Drosinos, E.H. (2007). Phenotypic and technological diversity of lactic acid bacteria and staphylococci isolated from traditionally fermented sausages in southern Greece. Food Microbiol. 24(3):260-70.	ATCC 29974 DSM 20260	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802. Lavecchia, A., Chiara, M., De Virgilio, C., Manzari, C., Pazzani, C., Horner, D., Pesole, G., Placido, A. (2021). Comparative genomics suggests a taxonomic revision of the Staphylococcus cohnii species complex. Genome Biol Evol. 2021 Feb 12:evab020. doi: 10.1093/gbe/evab020. Epub ahead of print. PMID: 33576800.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus cohnii*		Seafood	Devi, K.R., Deka, M., Jeyaram, K. (2015). Bacterial dynamics during yearlong spontaneous fermentation for production of ngari, a dry fermented fish product of Northeast India. Int J Food Microbiol. Apr 16;199:62-71. doi: 10.1016/j.ijfoodmicro.2015.01.004. Epub 2015 Jan 10. PMID: 25637876.	ATCC 29974 DSM 20260	Madhaiyan, M., Wirth, J.S., Saravanan, V.S. (2020). Phylogenomic analyses of the Staphylococcaceae family suggest the reclassification of five species within the genus Staphylococcus as heterotypic synonyms, the promotion of five subspecies to novel species, the taxonomic reassignment of five Staphylococcus species to Mammaliicoccus gen. nov., and the formal assignment of Nosocomiicoccus to the family Staphylococcaceae. Int J Syst Evol Microbiol. 2020 Nov;70(11):5926-5936. doi: 10.1099/ijsem.0.004498. PMID: 33052802. Lavecchia, A., Chiara, M., De Virgilio, C., Manzari, C., Pazzani, C., Horner, D., Pesole, G., Placido, A. (2021). Comparative genomics suggests a taxonomic revision of the Staphylococcus cohnii species complex. Genome Biol Evol. 2021 Feb 12:evab020. doi: 10.1093/gbe/evab020. Epub ahead of print. PMID: 33576800.

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Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus condimenti*		Plant Based	Probst, A.J., Hertel, C., Richter, L., Wassill, L., Ludwig, W., Hammes, W.P. (1998). Staphylococcus condimenti sp. nov., from soy sauce mash, and Staphylococcus carnosus (Schleifer and Fischer 1982) subsp. utilis subsp. nov. Int. J. Syst. Bacteriol. 48, 651-658.	DSM 11674	Probst, A.J., Hertel, C., Richter, L., Wassill, L., Ludwig, W., Hammes, W.P. (1998). Staphylococcus condimenti sp. nov., from soy sauce mash, and Staphylococcus carnosus (Schleifer and Fischer 1982) subsp. utilis subsp. nov. Int. J. Syst. Bacteriol. 48, 651-658.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus condimenti*		Seafood	Majumdar, R.K., Gupta, S. (2020). Isolation, identification and characterization of Staphylococcus sp. from Indian ethnic fermented fish product. Lett Appl Microbiol. 2020 Oct;71(4):359-368. doi: 10.1111/lam.13362. Epub 2020 Aug 14. PMID: 32713031.	DSM 11674	Probst, A.J., Hertel, C., Richter, L., Wassill, L., Ludwig, W., Hammes, W.P. (1998). Staphylococcus condimenti sp. nov., from soy sauce mash, and Staphylococcus carnosus (Schleifer and Fischer 1982) subsp. utilis subsp. nov. Int. J. Syst. Bacteriol. 48, 651-658.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus equorum*	*Staphylococcus equorum* subsp. *equorum*	Dairy	Ercolini, D., Hill, P.J., Dodd, C.E. (2003). Bacterial community structure and location in Stilton cheese. Appl Environ Microbiol. 2003 Jun;69(6):3540-8. doi: 10.1128/aem.69.6.3540-3548.2003. PMID: 12788761; PMCID: PMC161494. Carnio, M., Höltzel, A., Rudolf, M., Henle, T., Jung, G., Scherer, S. (2000). The Macrocyclic Peptide Antibiotic Micrococcin P1 Is Secreted by the Food-Borne Bacterium Staphylococcus equorum WS 2733 and Inhibits Listeria monocytogenes on Soft Cheese. Appl Environ Microbiol. 66, 2378–2384.	DSM 20674 ATCC 43958	Jeong, D.W., Kim, H.R., Han, S., Jeon, C.O., Lee, J.H. (2013). A proposal to unify two subspecies of Staphylococcus equorum: Staphylococcus equorum subsp. equorum and Staphylococcus equorum subsp. linens. Antonie Van Leeuwenhoek. 2013 Dec;104(6):1049-62. doi: 10.1007/s10482-013-0025-z. Epub 2013 Sep 22. PMID: 24057981.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus equorum*	*Staphylococcus equorum* subsp. *equorum*	Meat	Landeta, G., Curiel, J.A., Carrascosa, A.V., Muñoz, R., de las Rivas, B. (2012). Characterization of coagulase-negative staphylococci isolated from Spanish dry cured meat products. Meat Sci. 2013 Mar;93(3):387-96. doi: 10.1016/j.meatsci.2012.09.019. Epub 2012 Oct 31. PMID: 23273441. Schlafmann, K., Meusburger, A.P., Hammes, W.P., Braun, C., Fischer, A., Hertel, C. (2002). Starterkulturen zur Verbesserung der Qualität von Rohschinken. Fleischwirtschaft 11, 108-114.	DSM 20674 ATCC 43958	Jeong, D.W., Kim, H.R., Han, S., Jeon, C.O., Lee, J.H. (2013). A proposal to unify two subspecies of Staphylococcus equorum: Staphylococcus equorum subsp. equorum and Staphylococcus equorum subsp. linens. Antonie Van Leeuwenhoek. 2013 Dec;104(6):1049-62. doi: 10.1007/s10482-013-0025-z. Epub 2013 Sep 22. PMID: 24057981.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus equorum*	*Staphylococcus equorum* subsp. *linens*	Dairy	Place, R.B., Hiestand, D., Gallmann, H.R., Teuber, M. (2003). Staphylococcus equorum subsp. linens, subsp. nov., a starter culture component for surface ripened semi-hard cheeses. Syst. Appl. Microbiol. 26, 30-37.	DSM 15097	Place, R.B., Hiestand, D., Gallmann, H.R., Teuber, M. (2003). Staphylococcus equorum subsp. linens, subsp. nov., a starter culture component for surface ripened semi-hard cheeses. Syst. Appl. Microbiol. 26, 30-37.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus piscifermentans*		Seafood	Majumdar, R.K., Gupta, S. (2020). Isolation, identification and characterization of Staphylococcus sp. from Indian ethnic fermented fish product. Lett Appl Microbiol. 2020 Oct;71(4):359-368. doi: 10.1111/lam.13362. Epub 2020 Aug 14. PMID: 32713031. Tanasupawat, S., Hashimoto, Y., Ezaki, T., Kozaki, M., Komagata, K. (1992). Staphylococcus piscifermentans sp. nov., from fermented fish in Thailand. Int. J. Syst. Bacteriol. 42, 577-581.	NRIC 1817 DSM 7373	Tanasupawat, S., Hashimoto, Y., Ezaki, T., Kozaki, M., Komagata, K. (1992). Staphylococcus piscifermentans sp. nov., from fermented fish in Thailand. Int. J. Syst. Bacteriol. 42, 577-581.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus saprophyticus*		Meat	Kaban, G.J. (2008). Identification of lactic acid bacteria and Gram-positive catalase-positive cocci isolated from naturally fermented sausage (sucuk). Food Sci. 73(8):M385-8.	ATCC 15305 DSM 20229	(Fairbrother, 1940) Shaw, C., Stitt, M., Cowan, S.T. (1951). Staphylococci and their classification. J. Gen. Microbiol. 5: 1010-1023.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus saprophyticus*		Dairy	Bertuzzi, A.S., Guinane, C.M., Crispie, F., Kilcawley, K.N., McSweeney, P.L.H., Rea, M.C. (2017). Genome Sequence of Staphylococcus saprophyticus DPC5671, a Strain Isolated from Cheddar Cheese. Genome Announc. 2017 Apr 20;5(16):e00193-17. doi: 10.1128/genomeA.00193-17. PMID: 28428298; PMCID: PMC5399257. Cogan, T.M., Goerges, S., Gelsomino, R., Larpin, S., Hohenegger, M., Bora, N., Jamet, E., Rea, M.C., Mounier, J., Vancanneyt, M., Guéguen, M., Desmasures, N., Swings, J., Goodfellow, M., Ward, A.C., Sebastiani, H., Irlinger, F., Chamba, J.F., Beduhn, R., Scherer, S. (2014). Biodiversity of the Surface Microbial Consortia from Limburger, Reblochon, Livarot, Tilsit, and Gubbeen Cheeses. Microbiol Spectr. 2014 Feb;2(1):CM-0010-2012. doi: 10.1128/microbiolspec.CM-0010-2012. PMID: 26082119.	ATCC 15305 DSM 20229	(Fairbrother, 1940) Shaw, C., Stitt, M., Cowan, S.T. (1951). Staphylococci and their classification. J. Gen. Microbiol. 5: 1010-1023.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus succinus*	*Staphylococcus succinus* subsp. *casei*	Dairy	Place, R.B., Hiestand, D., Burri, S., Teuber, M. (2002). Staphylococcus succinus subsp. casei subsp. nov., a dominant isolate from a surface ripened cheese. Systematic and Applied Microbiology 25, 353-9.	DSM 15096	Place, R.B., Hiestand, D., Burri, S., Teuber, M. (2002). Staphylococcus succinus subsp. casei subsp. nov., a dominant isolate from a surface ripened cheese. Systematic and Applied Microbiology 25, 353-9.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus succinus*	*Staphylococcus succinus* subsp. *succinus*	Meat	Talon, R., Leroy, S., Lebert, I., Giammarinaro, P., Chacornac, J.P., Latorre-Moratalla, M., Vidal-Carou, C., Zanardi, E., Conter, M., Lebecque, A. (2008). Safety improvement and preservation of typical sensory qualities of traditional dry fermented sausages using autochthonous starter cultures. International Journal of Food Microbiology 126, 227-34. Villani, F., Casaburi, A., Pennacchia, C., Filosa, L., Russo, F., Ercolini, D. (2008). Microbial ecology of the soppressata of Vallo di Diano, a traditional dry fermented sausage from southern Italy, and in vitro and in situ selection of autochthonous starter cultures. Applied and Environmental Microbiology 73, 5453-63.	ATCC 700337 DSM 14617	Lambert, L.H., Cox, T., Mitchell, K., Rosselló-Mora, R.A., Del Cueto, C., Dodge, D.E., Orkand, P., Cano, R.J. (1998). Staphylococcus succinus sp. nov., isolated from Dominican amber. Int J Syst Bacteriol. 48 Pt 2:511-8.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus warneri*		Meat	Corbière Morot-Bizot, S. (2006). Staphylococcal community of a small unit manufacturing traditional dry fermented sausages. Int J Food Microbiol. 108, 210-7.	ATCC 27836 DSM 20316	Kloos, W.E., Schleifer, K.H. (1975). Isolation and characterization of staphylococci from human skin. II. Description of four new species: Staphylococcus warneri, Staphylococcus capitis, Staphylococcus hominis, and Staphylococcus simulans. International Journal of Systematic Bacteriology 25, 62-79.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus xylosus*		Dairy	Ruaro, A., Andrighetto, C., Torriani, S., Lombardi, A. (2012). Biodiversity and characterization of indigenous coagulase-negative staphylococci isolated from raw milk and cheese of North Italy. Food Microbiol. 2013 May;34(1):106-11. doi: 10.1016/j.fm.2012.11.013. Epub 2012 Dec 4. PMID: 23498185.	ATCC 29971 DSM 20266	Schleifer, K.H., Kloos, W.E. (1975). Isolation and characterization of staphylococci from human skin. I. Amended descriptions of Staphylococcus epidermidis and Staphylococcus saprophyticus and descriptions of three new species: Staphylococcus cohnii, Staphylococcus haemolyticus, and Staphylococcus xylosus. International Journal of Systematic Bacteriology 25, 50-61.
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus xylosus*		Meat	Corbière Morot-Bizot, S. (2006). Staphylococcal community of a small unit manufacturing traditional dry fermented sausages. Int J Food Microbiol. 108, 210-7.	ATCC 29971 DSM 20266	Schleifer, K.H., Kloos, W.E. (1975). Isolation and characterization of staphylococci from human skin. I. Amended descriptions of Staphylococcus epidermidis and Staphylococcus saprophyticus and descriptions of three new species: Staphylococcus cohnii, Staphylococcus haemolyticus, and Staphylococcus xylosus. International Journal of Systematic Bacteriology 25, 50-61.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Staphylococcaceae*	*Staphylococcus*	*Staphylococcus xylosus*		Plant Based	Jang, M., Jeong, D.-W. and Lee, J.-H. (2019). Identification of the predominant Bacillus, Enterococcus, and Staphylococcus species in Meju, a Spontaneously fermented soybean products. Microbiol. Biotechnol. Lett., 47, 359-363.	ATCC 29971 DSM 20266	Schleifer, K.H., Kloos, W.E. (1975). Isolation and characterization of staphylococci from human skin. I. Amended descriptions of Staphylococcus epidermidis and Staphylococcus saprophyticus and descriptions of three new species: Staphylococcus cohnii, Staphylococcus haemolyticus, and Staphylococcus xylosus. International Journal of Systematic Bacteriology 25, 50-61.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus cremoris*		Dairy	Thomas, T.D., Turner, K.W., Crow, V.L. (1980). Galactose fermentation by Streptococcus lactis and Streptococcus cremoris: pathways, products, and regulation. J Bacteriol. 144, 672-82.	ATCC 19257	Li, T.T., Tian, W.L., Gu, C.T. (2019). Elevation of Lactococcus lactis subsp. cremoris to the species level as Lactococcus cremoris sp. nov. and transfer of Lactococcus lactis subsp. tructae to Lactococcus cremoris as Lactococcus cremoris subsp. tructae comb. nov. Int J Syst Evol Microbiol. 2019 Jun;71(3). doi: 10.1099/ijsem.0.004727. Epub 2021 Mar 2. PMID: 33650946.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus hircilactis*		Dairy	Tidona, F., Meucci, A., Povolo, M., Pelizzola, V., Zago, M., Contarini, G., Carminati, D., Giraffa, G. (2018). Applicability of Lactococcus hircilactis and Lactococcus laudensis as dairy cultures. Int J Food Microbiol. 2018 Apr 20;271:1-7. doi: 10.1016/j.ijfoodmicro.2018.02.015.	DSM 28961	Meucci, A., Zago, M., Rossetti, L., Fornasari, M.E., Bonvini, B., Tidona, F., Povolo, M., Contarini, G., Carminati, D., Giraffa, G. (2015). Lactococcus hircilactis sp. nov. and Lactococcus laudensis sp. nov., isolated from milk. Int J Syst Evol Microbiol. 2015 Jul;65(7):2091-2096. doi: 10.1099/ijs.0.000225
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Dairy	Thomas, T.D., Turner, K.W., Crow, V.L. (1980). Galactose fermentation by Streptococcus lactis and Streptococcus cremoris: pathways, products, and regulation. J Bacteriol. 144, 672-82.	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Meat	Rodriguez, J.M., Cintas, L.M., Casaus, P., Horn, N., Dodd, H.M., Hernandez, P.E., Gasson, M.J. (1995). Isolation of nisin-producing Lactococcus lactis strains from dry fermented sausages. J Applied Bacteriology 79 p109-115	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Seafood	Campos, C.A., Rodrıguez, O., Calo-Mata, P., Prado, M., Barros-Velazquez, J. (2006). Preliminary characterization of bacteriocins from Lactococcus lactis, Enterococcus faecium and Enterococcus mundtii strains isolated from turbot (Psetta maxima) Food Research International 39 p356–364 Sarika, A.R., Lipton, A.P., Aishwarya, M.S., Dhivya, R.S. (2012). Isolation of Bacteriocin-Producing Lactococccus lactis and Application of Its Bacteriocin to Manage Spoilage Baceria in High-Value Marine Fish Under Different Storage Temperatures. Appl. Biochem Biotechnol 167, 1280-1289.	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Alcoholic Beverages	Todorov, S.D., Dicks, L.M.T. (2004). Screening of Lactic-Acid Bacteria from South African Barley Beer for Production of Bacteriocin-like Compounds Folia Microbiol. 49 (4) 406-410,	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Alcoholic Beverages	Lui, H.C. & Lui, S.S.T. (1981). Effects of malo-lactic fermentative bacteria on the acidity of white wine, Taiwania, Vol. 26	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus lactis*	*Lactococcus lactis* subsp. *lactis*	Plant Based	Uhlman, L., Schillinger, U., Rupnow, J.R. and Holzapfel, W.H. (1992). Identification and characterization of two bacteriocin-producing strains of Lactococcus lactis isolated from vegetables. IJFM 16 p141-151	ATCC 19435	Lister, J. (1873). A further contribution to the natural history of bacteria and the germ theory of fermentative changes. Quart. Microbiol. Sci. 13, 380–408.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus laudensis*		Dairy	Tidona, F., Meucci, A., Povolo, M., Pelizzola, V., Zago, M., Contarini, G., Carminati, D., Giraffa, G. (2018). Applicability of Lactococcus hircilactis and Lactococcus laudensis as dairy cultures. Int J Food Microbiol. 2018 Apr 20;271:1-7. doi: 10.1016/j.ijfoodmicro.2018.02.015.	DSM 28960	Meucci, A., Zago, M., Rossetti, L., Fornasari, M.E., Bonvini, B., Tidona, F., Povolo, M., Contarini, G., Carminati, D., Giraffa, G. (2015). Lactococcus hircilactis sp. nov. and Lactococcus laudensis sp. nov., isolated from milk. Int J Syst Evol Microbiol. 2015 Jul;65(7):2091-2096. doi: 10.1099/ijs.0.000225
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus piscium*		Seafood	Leroi, F., Cornet, J., Chevalier, F., Cardinal, M., Coeuret, G., Chaillou, S., Joffraud., J.J. (2015). Selection of bioprotective cultures for preventing cold-smoked salmon spoilage. IJFM 213, 79-87. Saraoui, T., Leroi, F., Bjorkroth, J. and Pilet, M.F. (2016). Lactococcus piscium: a psychrotrophic lactic acid bacterium with bioprotective or spoilage activity in food—a review. Journal of Applied Microbiology 121 p907-918	ATCC 700018	Williams, A.M., Fryer, J.L., Del Collins, M. (1990). Lactococcus piscium sp. Nov. A new Lactococcus species from salmonid fish. FEMS Micribiology Letters 56, 109-113.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus piscium*		Meat	Saroui, T., Leroi, F., Björkroth, J. and Pilet, M.F. (2016). Lactococcus piscium: a psychrotophic lactic acid bacterium with bioprotective or spoilage activity in food-a review. J. Appl. Microbiol., 121, 907-918.	ATCC 700018	Williams, A.M., Fryer, J.L., Del Collins, M. (1990). Lactococcus piscium sp. Nov. A new Lactococcus species from salmonid fish. FEMS Micribiology Letters 56, 109-113.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus raffinolactis*		Dairy	Ouadghiri, M., Amar, M., Vancanneyt, M., Swings, J. (2005). Biodiversity of lactic acid bacteria in Moroccan soft white cheese (Jben).FEMS Microbiol Lett. 251, 267-71.	ATCC 43920	Orla-Jensen, A.D., Hansen, P.A. (1932). The bacteriological flora of spontaneously soured milk and of commercial starters for butter making. Zentralbl. Bakteriol. Parasitenkd. Infektionskr Hyg. Abt. 2 86, 6-29.
Monera	*Firmicutes*	*Streptococacceae*	*Lactococcus*	*Lactococcus raffinolactis*		Plant Based	Jung, M.Y., Lee, C., Seo, MJ. et al. (2020). Characterization of a potential probiotic bacterium Lactococcus raffinolactis WiKim0068 isolated from fermented vegetable using genomic and in vitro analyses. BMC Microbiol 20, 136. https://doi.org/10.1186/s12866-020-01820-9	ATCC 43920	Orla-Jensen, A.D., Hansen, P.A. (1932). The bacteriological flora of spontaneously soured milk and of commercial starters for butter making. Zentralbl. Bakteriol. Parasitenkd. Infektionskr Hyg. Abt. 2 86, 6-29.
Monera	*Firmicutes*	*Streptococacceae*	*Streptococcus*	*Streptococcus gallolyticus*	*Streptococcus gallolyticus* subsp. *macedonicus*	Dairy	Tarrah, A., da Silva Duarte, V., Pakroo, S., Corich, V., Giacomini, A. (2019). Genomic and phenotypic assessments of safety and probiotic properties of Streptococcus macedonicus strains of dairy origin. Food Res Int. 2020 Apr;130:108931. doi: 10.1016/j.foodres.2019.108931. Epub 2019 Dec 26. PMID: 32156379. Georgalaki, M.D., Sarantinopoulos, P., Ferreira, E.S., De Vuyst, L., Kalantzopoulos, G., Tsakalidou, E. (2000). Biochemical properties of Streptococcus macedonicus strains isolated from Greek Kasseri cheese. Journal of Applied Microbiology 88, 817-25.	ATCC BAA249 DSM 15879	Schlegel, L., Grimont, F., Ageron, E., Grimont, P.A.D., Bouvet, A. (2003). Reappraisal of the taxonomy of the Streptococcus bovis/Streptococcus equinus complex and related species: description of Streptococcus gallolyticus subsp. gallolyticus subsp. nov., S. gallolyticus subsp. macedonicus subsp. nov. and S. gallolyticus subsp. pasteurianus subsp. nov. Int J Syst Evol Microbiol. 2003 May;53(Pt 3):631-645. doi: 10.1099/ijs.0.02361-0. PMID: 12807180
Monera	*Firmicutes*	*Streptococacceae*	*Streptococcus*	*Streptococcus salivarius*	*Streptococcus salivarius* subsp. *thermophilus*	Dairy	Sherman, J.M., Stark, P. (1938). The Fermentation of Disaccharides by Streptococcus thermophilus. J Bacteriol. 36, 77-81.	ATCC 19258 DSM 20617	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Streptococacceae*	*Streptococcus*	*Streptococcus salivarius*	*Streptococcus salivarius* subsp. *thermophilus*	Plant Based	Michaylova, M. et al. (2007). Isolation and characterization of Lactobacillus delbrueckii ssp. bulgaricus and Streptococcus thermophilus from plants in Bulgaria. FEMS Microbiol. Lett., 269, 160-169. Simsek, Ö., Özel, S. and Con, A.H. (2017). Comparison of lactic acid bacteria diversity during the fermentation of Tarhana produced at home and on a commercial scale. Food Sci. Technol., 26, 181-187.	ATCC 19258 DSM 20617	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.
Monera	*Firmicutes*	*Streptococacceae*	*Streptococcus*	*Streptococcus salivarius*	*Streptococcus salivarius* subsp. *thermophilus*	Plant Based	Zhao, J. et al. (2009). Changes in microbial community during Chinese traditional soybean paste fermentation. Int. J. Food Sci. Technol., 44, 2526-2530.	ATCC 19258 DSM 20617	Orla-Jensen, S. (1924). La classification des bactéries lactiques. Lait 4, 468–474.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Firmicutes*	*Streptococacceae*	*Streptococcus*	*Streptococcus salivarius*	*Streptococcus salivarius* subsp. *salivarius*	Plant Based	Ongol, M.P., Asano, K. (2009). Main microorganisms involved in the fermentation of Ugandan ghee. Int J Food Microbiol. 133, 286-91. Chun, J., Kim, G.M., Lee, K., Choi, I.D., Kwon, G.H., Park, J.Y., Jeong, S.J., Kim, J.S., Kim, J.H. (2007). Conversion of Isoflavone Glucosides to Aglycones in Soymilk by Fermentation with Lactic Acid Bacteria. J Food Science 72(2) M39-44	ATCC 7073	Andrewes, F.W., Horder, T.J. (1906). A study of the streptococci pathogenic for man. Lancet ii:708-713.
Monera	*Firmicutes*	*Thermoactinomycetaceae*	*Thermoactinomyces*	*Thermoactinomyces daqus*		Alcoholic Beverages	Liu, H.Q., Yu, H.J., Zhai, L., Bai, F.R., Yao, S. (2021). Optimization of conditions and enzymatic properties of thermophilic protease production of Thermoactinomyces daqus CICC10681[J]. Food and Fermentation Industries:1-10[2021-02-10].https://doi.org/10.13995/j.cnki.11-1802/ts.025828. (in Chinese)	CICC 10681	Yao, S., Liu, Y., Zhang, M. et al. (2014). Thermoactinomyces daqus sp. nov., a thermophilic bacterium isolated from high-temperature Daqu[J]. Int J Syst Evol Microbiol, 2014, 64:206-210.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter aceti*	*Acetobacter aceti* subsp. *aceti*	Dairy	Belloso-Morales, G., Hernández-Sánchez, H. (2003). Manufacture of a beverage from cheese whey using a tea fungus fermentation. Rev Latinoam Microbiol. 45: 5-11.	ATCC 15973	De Ley, J., Frateur, J. (1974). Genus Acetobacter. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manualof Determinative Bacteriology, 8th ed. Williams andWilkins. Baltimore, MD. 276–278.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter aceti*	*Acetobacter aceti* subsp. *aceti*	Vinegar	Dias, D.R., Silva, M.S., de Souza, A.C., Magalhães-Guedes, K.T., de Rezende Ribeiro, F.S., Schwan, R.F. (2016). Vinegar Production from Jabuticaba (Myrciaria jaboticaba) Fruit Using Immobilized Acetic Acid Bacteria. Food Technol Biotechnol. 54: 351-359.	ATCC 15973	De Ley, J., Frateur, J. (1974). Genus Acetobacter. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manualof Determinative Bacteriology, 8th ed. Williams andWilkins. Baltimore, MD. 276–278.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter aceti*	*Acetobacter aceti* subsp. *aceti*	Vinegar	Beppu, T. (1993-1994). Genetic organization of Acetobacter for acetic acid fermentation. Antonie Van Leeuwenhoek. 64, 121-35.	ATCC 15973	De Ley, J., Frateur, J. (1974). Genus Acetobacter. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manual of Determinative Bacteriology, 8th ed. Williams and Wilkins. Baltimore, MD. 276–278.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter conturbans*		Alcoholic Beverages	Sombolestani, A.S., Cleenwerck, I., Cnockaert, M., Borremans, W., Wieme, A.D., De Vuyst, L., Vandamme, P. (2020). Novel acetic acid bacteria from cider fermentations: Acetobacter conturbans sp. nov. and Acetobacter fallax sp. nov. Int J Syst Evol Microbiol. 2020 Dec;70(12):6163-6171. doi: 10.1099/ijsem.0.004511. PMID: 33052084.	NCIMB 8945	Sombolestani, A.S., Cleenwerck, I., Cnockaert, M., Borremans, W., Wieme, A.D., De Vuyst, L., Vandamme, P. (2020). Novel acetic acid bacteria from cider fermentations: Acetobacter conturbans sp. nov. and Acetobacter fallax sp. nov. Int J Syst Evol Microbiol. 2020 Dec;70(12):6163-6171. doi: 10.1099/ijsem.0.004511. PMID: 33052084.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter fabarum*		Plant Based	Cleenwerck, I. (2008). Acetobacter fabarum sp. nov., an acetic acid bacterium from a Ghanaian cocoa bean heap fermentation.Int J Syst Evol Microbiol. 58(Pt 9), 2180-5.	DSM 19596	Cleenwerck, I. (2008). Acetobacter fabarum sp. nov., an acetic acid bacterium from a Ghanaian cocoa bean heap fermentation.Int J Syst Evol Microbiol. 58(Pt 9), 2180-5.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter fabarum*		Dairy	Garofalo, C., Osimani, A., Milanović, V., Aquilanti, L., De Filippis, F., Stellato, G., Di Mauro, S., Turchetti, B., Buzzini, P., Ercolini, D., Clementi, F. (2015). Bacteria and yeast microbiota in milk kefir grains from different Italian regions. Food Microbiol. 49:123-33	DSM 19596	Cleenwerck, I. (2008). Acetobacter fabarum sp. nov., an acetic acid bacterium from a Ghanaian cocoa bean heap fermentation.Int J Syst Evol Microbiol. 58(Pt 9), 2180-5.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter fabarum*		Plant Based	Qin, H., Sun, S., Pan, X., Qiao, Z., Yang, H. (2016). Microbial Diversity and Biochemical Analysis of Suanzhou: A Traditional Chinese Fermented Cereal Gruel. Front Microbiol. 7:1311	DSM 19596	Cleenwerck, I. (2008). Acetobacter fabarum sp. nov., an acetic acid bacterium from a Ghanaian cocoa bean heap fermentation.Int J Syst Evol Microbiol. 58(Pt 9), 2180-5.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter fallax*		Alcoholic Beverages	Sombolestani, A.S., Cleenwerck, I., Cnockaert, M., Borremans, W., Wieme, A.D., De Vuyst, L., Vandamme, P. (2020). Novel acetic acid bacteria from cider fermentations: Acetobacter conturbans sp. nov. and Acetobacter fallax sp. nov. Int J Syst Evol Microbiol. 2020 Dec;70(12):6163-6171. doi: 10.1099/ijsem.0.004511. PMID: 33052084.	NCIMB 8956	Sombolestani, A.S., Cleenwerck, I., Cnockaert, M., Borremans, W., Wieme, A.D., De Vuyst, L., Vandamme, P. (2020). Novel acetic acid bacteria from cider fermentations: Acetobacter conturbans sp. nov. and Acetobacter fallax sp. nov. Int J Syst Evol Microbiol. 2020 Dec;70(12):6163-6171. doi: 10.1099/ijsem.0.004511. PMID: 33052084.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter ghanensis*		Plant Based	Illeghems, K., Pelicaen, R., De Vuyst, L., Weckx, S. (2016). Assessment of the contribution of cocoa-derived strains of Acetobacter ghanensis and Acetobacter senegalensis to the cocoa bean fermentation process through a genomic approach. Food Microbiol. 58: 68-78.	DSM 18895	Cleenwerck, I., Camu, N., Engelbeen, K., De Winter, T., Vandemeulebroecke, K., De Vos, P., De Vuyst, L. (2007). Acetobacter ghanensis sp. nov., a novel acetic acid bacterium isolated from traditional heap fermentations of Ghanaian cocoa beans. Int J Syst Evol Microbiol. 57: 1647-1652.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter lambici*		Alcoholic Beverages	Spitaels, F., Li, L., Wieme, A., Balzarini, T., Cleenwerck, I., Van Landschoot, A., De Vuyst, L., Vandamme, P. (2014). Acetobacter lambici sp. nov., isolated from fermenting lambic beer. Int J Syst Evol Microbiol 2014; 64:1083-1089.	DSM 27328	Spitaels, F., Li, L., Wieme, A., Balzarini, T., Cleenwerck, I., Van Landschoot, A., De Vuyst, L., Vandamme, P. (2014). Acetobacter lambici sp. nov., isolated from fermenting lambic beer. Int J Syst Evol Microbiol 2014; 64:1083-1089.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter lovaniensis*		Dairy	Ongol, M.P., Asano, K. (2009). Main microorganisms involved in the fermentation of Ugandan ghee. Int J Food Microbiol. 133, 286-91.	ATCC 12875	Lisdiyanti, P., Kawasaki, H., Seki, T., Yamada, Y., Uchimura, T. & Komagata, K. (2000). Systematic study of the genus Acetobacter with descriptions of Acetobacter indonesiensis sp. nov., Acetobacter tropicalis sp. nov., Acetobacter orleanensis (Henneberg 1906) comb. nov., Acetobacter lovaniensis (Frateur 1950) comb. nov., and Acetobacter estunensis (Carr 1958) comb. nov. J Gen Appl Microbiol. 46(3), 147-165.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter malorum*		Plant Based	Hidalgo, C., Torija, M.J., Mas, A., Mateo, E. (2013). Effect of inoculation on strawberry fermentation and acetification processes using native strains of yeast and acetic acid bacteria. Food Microbiol. 34: 88-94.	DSM 14337	Cleenwerck, I. (2002). Re-examination of the genus Acetobacter, with descriptions of Acetobacter cerevisiae sp. nov. and Acetobacter malorum sp. nov.Int J Syst Evol Microbiol. 52(Pt 5), 1551-8.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter malorum*		Vinegar	Gullo, M. (2008). Acetic acid bacteria in traditional balsamic vinegar: phenotypic traits relevant for starter cultures selection. Int J Food Microbiol. 125, 46-53.	DSM 14337	Cleenwerck, I. (2002). Re-examination of the genus Acetobacter, with descriptions of Acetobacter cerevisiae sp. nov. and Acetobacter malorum sp. nov. Int J Syst Evol Microbiol. 52(Pt 5), 1551-8.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter nitrogenifigens*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	LMG 23498	Dutta, D., Gachhui, R. (2006). Novel nitrogen-fixing Acetobacter nitrogenifigens sp. nov., isolated from Kombucha tea. Int. J. Syst. Evol. Microbiol., 2006, 56, 1899-1903.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter orientalis*		Alcoholic Beverages	De Roos, J., Verce, M., Aerts, M., Vandamme, P., De Vuyst, L. (2018). Temporal and Spatial Distribution of the Acetic Acid Bacterium Communities throughout the Wooden Casks Used for the Fermentation and Maturation of Lambic Beer Underlines Their Functional Role. Appl Environ Microbiol. 84(7):e02846-17.	ATCC 12875	Lisdiyanti, P. (2001). Identification of Acetobacter strains isolated from Indonesian sources, and proposals of Acetobacter syzygii sp. nov., Acetobacter cibinongensis sp. nov., and Acetobacter orientalis sp. nov. J Gen Appl Microbiol. 47, 119-131.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter orientalis*		Dairy	Ongol, M.P., Asano, K. (2009). Main microorganisms involved in the fermentation of Ugandan ghee. Int J Food Microbiol. 133, 286-91.	ATCC 12875	Lisdiyanti, P. (2001). Identification of Acetobacter strains isolated from Indonesian sources, and proposals of Acetobacter syzygii sp. nov., Acetobacter cibinongensis sp. nov., and Acetobacter orientalis sp. nov. J Gen Appl Microbiol. 47, 119-131.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter orientalis*		Plant Based	Tanasupawat, S., Kommanee, J., Yukphan, P., Nakagawa, Y., Yamada, Y. (2011). Identification of Acetobacter strains from Thai fermented rice products based on the 16S rRNA gene sequence and 16S–23S rRNA gene internal transcribed spacer restriction analyses. J Sci Food Agric 91(14):2652-2659	ATCC 12875	Lisdiyanti, P. (2001). Identification of Acetobacter strains isolated from Indonesian sources, and proposals of Acetobacter syzygii sp. nov., Acetobacter cibinongensis sp. nov., and Acetobacter orientalis sp. nov. J Gen Appl Microbiol. 47, 119-131.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter orleanensis*		Vinegar	Mamlouk, D., Hidalgo, C., Torija, M.J. et al. (2011). Evaluation and optimisation of bacterial genomic DNA extraction for no-culture techniques applied to vinegars[J].Food Microbiol, 2011, 28(7):1374-1379.	ATCC 12876	Lisdiyanti, P., Kawasaki, H., Seki, T., Yamada, Y., Uchimura, T. & Komagata, K. (2000). Systematic study of the genus Acetobacter with descriptions of Acetobacter indonesiensis sp. nov. Acetobacter tropicalis sp. nov. Acetobacter orleanensis (henneberg 1906) comb. nov. Acetobacter lovaniensis (frateur 1950) comb. nov. and Acetobacter estunensis (Carr 1958) comb. nov. J Gen Appl Microbiol. 46(3), 147-165.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter pasteurianus*	*Acetobacter pasteurianus* subsp. *pasteurianus*	Vinegar	Nanda, K., Taniguchi, M., Ujike, S., Ishihara, N., Mori, H., Ono, H., Murooka, Y. (2001). Characterization of acetic acid bacteria in traditional acetic acid fermentation of rice vinegar (komesu) and unpolished rice vinegar (kurosu) produced in Japan. Appl Environ Microbiol. 67, 986-90.	ATCC 838	De Ley, J., Frateur, J. (1974). Genus Acetobacter. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manual of Determinative Bacteriology, 8th ed. Williams and Wilkins. Baltimore, MD. 276–278.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter pasteurianus*	*Acetobacter pasteurianus* subsp. *pasteurianus*	Plant Based	Nielsen, D.S. (2007). The microbiology of Ghanaian cocoa fermentations analysed using culture-dependent and culture-independent methods.Int J Food Microbiol. 114, 168-86.	ATCC 838	De Ley, J., Frateur, J. (1974). Genus Acetobacter. In: Buchanan, R.E., Gibbons, N.E. (Eds.), Bergey's Manual of Determinative Bacteriology, 8th ed. Williams and Wilkins. Baltimore, MD. 276–278.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter pomorum*		Vinegar	Sokollek, S.J., Hertel, C., Hammes, W.P. (1998). Description of Acetobacter oboediens sp. nov. and Acetobacter pomorum sp. nov., two new species isolated from industrial vinegar fermentations. Int. J. Syst. Bacteriol. 48, 935–940.	DSM 11825	Sokollek, S.J., Hertel, C., Hammes, W.P. (1998b). Description of Acetobacter oboediens sp. nov. and Acetobacter pomorum sp. nov., two new species isolated from industrial vinegar fermentations. Int. J. Syst. Bacteriol. 48, 935–940.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter sicerae*		Alcoholic Beverages	Li, L., Wieme, A., Spitaels, F., Balzarini, T., Nunes, O.C., Manaia, C.M., Van Landschoot, A., De Vuyst, L., Cleenwerck, I., Vandamme, P. (2014). Acetobacter sicerae sp. nov., isolated from cider and kefir, and identification of species of the genus Acetobacter by dnaK, groEL and rpoB sequence analysis. Int J Syst Evol Microbiol. 2014 Jul;64(Pt 7):2407-2415. doi: 10.1099/ijs.0.058354-0. Epub 2014 Apr 24. PMID: 24763601.	NCIMB 8941	Li, L., Wieme, A., Spitaels, F., Balzarini, T., Nunes, O.C., Manaia, C.M., Van Landschoot, A., De Vuyst, L., Cleenwerck, I., Vandamme, P. (2014). Acetobacter sicerae sp. nov., isolated from cider and kefir, and identification of species of the genus Acetobacter by dnaK, groEL and rpoB sequence analysis. Int J Syst Evol Microbiol. 2014 Jul;64(Pt 7):2407-2415. doi: 10.1099/ijs.0.058354-0. Epub 2014 Apr 24. PMID: 24763601.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter syzygii*		Vinegar	Yetiman, A.E., Kesmen, Z. (2015). Identification of acetic acid bacteria in traditionally produced vinegar and mother of vinegar by using different molecular techniques. Int J Food Microbiol. 204:9-16	IFO 16604	Lisdiyanti, P., Kawasaki, H., Seki, T., Yamada, Y., Uchimura, T., Komagata, K. (2001). Identification of Acetobacter strains isolated from Indonesian sources, and proposals of Acetobacter syzygii sp. nov., Acetobacter cibinongensis sp. nov., and Acetobacter orientalis sp. nov. J Gen Appl Microbiol. 47, 119-131.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter syzygii*		Plant Based	Nielsen, D.S. (2007). The microbiology of Ghanaian cocoa fermentations analysed using culture-dependent and culture-independent methods.Int J Food Microbiol. 114, 168-86.	IFO 16604	Lisdiyanti, P., Kawasaki, H., Seki, T., Yamada, Y., Uchimura, T., Komagata, K. (2001). Identification of Acetobacter strains isolated from Indonesian sources, and proposals of Acetobacter syzygii sp. nov., Acetobacter cibinongensis sp. nov., and Acetobacter orientalis sp. nov. J Gen Appl Microbiol. 47, 119-131.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Acetobacter*	*Acetobacter tropicalis*		Plant Based	Nielsen, D.S. (2007). The microbiology of Ghanaian cocoa fermentations analysed using culture-dependent and culture-independent methods.Int J Food Microbiol. 114, 168-86.	IFO 16470	Lisdiyanti, P., Kawasaki, H., Seki, T., Yamada, Y., Uchimura, T., Komagata, K. (2000). Systematic study of the genus Acetobacter with descriptions of Acetobacter indonesiensis sp. nov., Acetobacter tropicalis sp. nov., Acetobacter orleanensis (Henneberg 1906) comb. nov., Acetobacter lovaniensis (Frateur 1950) comb. nov., and Acetobacter estunensis (Carr 1958) comb. nov. J Gen Appl Microbiol. 46, 147-165.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter azotocaptans*		Plant Based	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.	ATCC 700988	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter azotocaptans*		Plant Based	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.	ATCC 700988	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter diazotrophicus*		Plant Based	Jimenez-Salgado, T. (1997). Coffea arabica L., a new host plant for Acetobacter diazotrophicus, and isolation of other nitrogen-fixing acetobacteria. Appl Environ Microbiol. 63, 3676-83.	ATCC 49037	Yamada, Y., Hoshino, K.-I., Ishikawa, T. (1998). Validation of publication of new names and new combinations previously effectively published outside the IJSB. List No. 64: Gluconacetobacter nom. corrig. (Gluconoacetobacter [sic]). Int. J. Syst. Bacteriol. 48, 327–328.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter diazotrophicus*		Plant Based	Jimenez-Salgado, T. (1997). Coffea arabica L., a new host plant for Acetobacter diazotrophicus, and isolation of other nitrogen-fixing acetobacteria. Appl Environ Microbiol. 63, 3676-83.	ATCC 49037	Yamada, Y., Hoshino, K.-I., Ishikawa, T. (1998). Validation of publication of new names and new combinations previously effectively published outside the IJSB. List No. 64: Gluconacetobacter nom. corrig. (Gluconoacetobacter [sic]). Int. J. Syst. Bacteriol. 48, 327–328.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter entanii*		Vinegar	Schüller, G., Hertel, C., Hammes, W.P. (2000). Gluconacetobacter entanii sp. nov., a new species isolated from submerged high-acid industrial vinegar fermentations. Int. J. Syst. Evol. Microbiol. 50, 2013–2020.	LTH 4560	Schüller, G., Hertel, C., Hammes, W.P. (2000). Gluconacetobacter entanii sp. nov., a new species isolated from submerged high-acid industrial vinegar fermentations. Int. J. Syst. Evol. Microbiol. 50, 2013–2020.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter johannae*		Plant Based	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.	ATCC 700987	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter johannae*		Plant Based	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.	ATCC 700987	Fuentes-Ramírez, L.E., Bustillos-Cristales, R., Tapia-Hernandez, A., Jimenez-Salgado, T., Wang, E.T., Martinez-Romero, E., Caballero-Mellado, J. (2001). Novel nitrogen-fixing acetic acid bacteria, Gluconacetobacter johannae sp. nov. and Gluconacetobacter azotocaptans sp. nov., associated with coffee plants. Int. J. Syst. Evol. Microbiol. 51, 1305–1314.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter kombuchae*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	LMG 23726	Dutta, D. and Gachhui, R. (2007). Nitrogen-fixing and cellulose-producing Gluconacetobacter kombuchae sp. nov., isolated from Kombucha tea. Int. J. Syst. Evol. Microbiol., 2007, 57, 353-357.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconacetobacter*	*Gluconacetobacter xylinus*		Vinegar	Gullo, M., Caggia, C., De Vero, L., Giudici, P. (2006). Characterization of acetic acid bacteria in traditional balsamic vinegar. Int J Food Microbiol. 106, 209-12.	ATCC 23767	Yamada, Y., Hoshino, K.-I., Ishikawa, T. (1998). Validation of publication of new names and new combinations previously effectively published outside the IJSB. List No. 64: Gluconacetobacter nom. corrig. (Gluconoacetobacter [sic]). Int. J. Syst. Bacteriol. 48, 327–328.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Gluconobacter*	*Gluconobacter oxydans*		Vinegar	De Muynck, C. (2007). The genus Gluconobacter oxydans: comprehensive overview of biochemistry and biotechnological applications. Crit Rev Biotechnol. 27(3):147-71.	ATCC 19357	(Henneberg, 1897) DeLey, J. (1961). Comparative carbohydrate metabolism and a proposal for the phylogenetic relationship of the acetic acid bacteria. J. Gen. Microbiol. 24:31-50.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Komagataeibacter*	*Komagataeibacter europaeus*		Vinegar	Gullo, M. (2008). Acetic acid bacteria in traditional balsamic vinegar: phenotypic traits relevant for starter cultures selection.Int J Food Microbiol. 125, 46-53.	ATCC 51845	Yamada, Y., Yukphan, P., Lan Vu, H.T., Muramatsu, Y., Ochaikul, D., Nakagawa, Y. (2012). Subdivision of the genus Gluconacetobacter Yamada, Hoshino and Ishikawa 1998: the proposal of Komagatabacter gen. nov., for strains accomodated to the Gluconacetobacter xylinus group in the α-Proteobacteria. Ann. Microbiol., 2012, 62, 849-859.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Komagataeibacter*	*Komagataeibacter hansenii*		Vinegar	Torija, M.J. (2010). Identification and quantification of acetic acid bacteria in wine and vinegar by TaqMan-MGB probes. Food Microbio. 27, 257-65.	ATCC 35959	Yamada, Y., Yukphan, P., Lan Vu, H.T., Muramatsu, Y., Ochaikul, D., Nakagawa, Y. (2012). Subdivision of the genus Gluconacetobacter Yamada, Hoshino and Ishikawa 1998: the proposal of Komagatabacter gen. nov., for strains accomodated to the Gluconacetobacter xylinus group in the α-Proteobacteria. Ann. Microbiol., 2012, 62, 849-859.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Komagataeibacter*	*Komagataeibacter intermedius*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	DSM 11804	Yamada, Y., Yukphan, P., Lan Vu, H.T., Muramatsu, Y., Ochaikul, D., Tanasupawat, S., Nakagawa, Y. (2012). Description of Komagataeibacter gen. nov., with proposals of new combinations (Acetobacteraceae). J Gen Appl Microbiol 2012; 58:397-404.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Komagataeibacter*	*Komagataeibacter oboediens*		Vinegar	Sokollek, S.J., Hertel, C., Hammes, W.P. (1998b). Description of Acetobacter oboediens sp. nov. and Acetobacter pomorum sp. nov., two new species isolated from industrial vinegar fermentations. Int. J. Syst. Bacteriol. 48, 935–940.	DSM 11826	Yamada, Y., Yukphan, P., Lan Vu, H.T., Muramatsu, Y., Ochaikul, D., Nakagawa, Y. (2012). Subdivision of the genus Gluconacetobacter Yamada, Hoshino and Ishikawa 1998: the proposal of Komagatabacter gen. nov., for strains accomodated to the Gluconacetobacter xylinus group in the α-Proteobacteria. Ann. Microbiol., 2012, 62, 849-859.
Monera	*Proteobacteria*	*Acetobacteraceae*	*Komagataeibacter*	*Komagataeibacter xylinus*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	DSM 6513	Yamada, Y., Yukphan, P., Lan Vu, H.T., Muramatsu, Y., Ochaikul, D., Tanasupawat, S., Nakagawa, Y. (2012). Description of Komagataeibacter gen. nov., with proposals of new combinations (Acetobacteraceae). J Gen Appl Microbiol 2012; 58:397-404..
Monera	*Proteobacteria*	*Enterobacteriaceae*	*Hafnia*	*Hafnia alvei*		Dairy	Mounier, J., Monnet, C., Vallaeys, T., Arditi, R., Sarthou, A.S., Hélias, A., Irlinger, F. (2008). Microbial interactions within a cheese microbial community. Appl Environ Microbiol. 74, 172-81.	ATCC 13337	Møller, V. (1954). Distribution of amino acid decarboxylases in Enterobacteriaceae. Acta Pathologica et Bacteriologica Scandinavica 35, 259-277.
Monera	*Proteobacteria*	*Enterobacteriaceae*	*Halomonas*	*Halomonas elongata*		Meat	Hinrichsen, L.L., Montel, M.C., Talon, R. (1994). Proteolytic and lipolytic activities of Micrococcus roseus (65), Halomonas elongata (16) and Vibrio sp. (168) isolated from Danish bacon curing brines. Int J Food Microbiol. 22(2-3), 115-26	ATCC 33173	Vreeland, R.H., Litchfield, C.D., Martin, E.L., Elliot, E. (1980). Halomonas elongata, a new genus and species of extremely salt-tolerant bacteria. Int. J. Syst. Bacteriol. 30, 485-495

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Monera	*Proteobacteria*	*Moraxellaceae*	*Psychrobacter*	*Psychrobacter celer*		Dairy	Irlinger, F., Yung, S.A., Sarthou, A.S., Delbès-Paus, C., Montel, M.C., Coton, E., Coton, M., Helinck, S. (2012). Ecological and aromatic impact of two Gram-negative bacteria (Psychrobacter celer and Hafnia alvei) inoculated as part of the whole microbial community of an experimental smear soft cheese. Int J Food Microbiol. 153(3):332-8.	JCM 12601 DSM 23510 KCTC 12313	Yoon, J.H., Lee, C.H., Kang, S.J., Oh, T.K. (2005). Psychrobacter celer sp. nov., isolated from sea water of the South Sea in Korea. Int. J. Syst. Evol. Microbiol., 55, 1885-1890.
Monera	*Proteobacteria*	*Moraxellaceae*	*Psychrobacter*	*Psychrobacter celer*		Seafood	Belleggia, L., Aquilanti, L., Ferrocino, I., Milanović, V., Garofalo, C., Clementi, F., Cocolin, L., Mozzon, M., Foligni, R., Haouet, M.N., Scuota, S., Framboas, M., Osimani, A. (2020). Discovering microbiota and volatile compounds of surströmming, the traditional Swedish sour herring. Food Microbiol. 2020 Oct;91:103503. doi: 10.1016/j.fm.2020.103503. Epub 2020 Apr 9. PMID: 32539969.	JCM 12601 DSM 23510 KCTC 12313	Yoon, J.H., Lee, C.H., Kang, S.J., Oh, T.K. (2005). Psychrobacter celer sp. nov., isolated from sea water of the South Sea in Korea. Int. J. Syst. Evol. Microbiol., 55, 1885-1890.
Monera	*Proteobacteria*	*Moraxellaceae*	*Psychrobacter*	*Psychrobacter cibarius*		Dairy	Feligini, M., Panelli, S., Buffoni, J.N., Bonacina, C., Andrighetto, C., Lombardi, A. (2012). Identification of microbiota present on the surface of Taleggio cheese using PCR-DGGE and RAPD-PCR. J Food Sci. 77(11):M609-15	DSM 16327 KCTC 12256	Jung, S.Y., Lee, M.H., Oh, T.K., Park, Y.H., Yoon, J.H. (2005). Psychrobacter cibarius sp. nov., isolated from jeotgal, a traditional Korean fermented seafood. Int. J. Syst. Evol. Microbiol., 55, 577-582.
Monera	*Proteobacteria*	*Moraxellaceae*	*Psychrobacter*	*Psychrobacter cibarius*		Seafood	Jung, S.Y., Lee, M.H., Oh, T.K., Park, Y.H., Yoon, J.H. (2005). Psychrobacter cibarius sp. nov., isolated from jeotgal, a traditional Korean fermented seafood. Int J Syst Evol Microbiol. 2005 Mar;55(Pt 2):577-582. doi: 10.1099/ijs.0.63398-0. PMID: 15774627.	DSM 16327 KCTC 12256	Jung, S.Y., Lee, M.H., Oh, T.K., Park, Y.H., Yoon, J.H. (2005). Psychrobacter cibarius sp. nov., isolated from jeotgal, a traditional Korean fermented seafood. Int. J. Syst. Evol. Microbiol., 55, 577-582.
Monera	*Proteobacteria*	*Sphingomonadaceae*	*Zymomonas*	*Zymomonas mobilis*	*Zymomonas mobilis* subsp. *mobilis*	Alcoholic Beverages	Rogers, P.L., Goodman, A.E., Heyes, R.H. (1984). Zymomonas ethanol fermentations. Microbiol Sci. 1, 133-6.	ATCC 10988	Swings, J., De Ley, J. (1977). The biology of Zymomonas. Bacteriol Rev. 41, 1-46.
Fungi	*Ascomycota*	*Aspergillaceae*	*Aspergillus*	*Aspergillus luchuensis*		Plant Based	Mogensen, J.M., Varga J., Thrane, U., Frisvad, J.C. (2009). Aspergillus acidus from Puerh tea and black tea does not produce ochratoxin A and fumonisin B2. Int. J. Food Microbiol. 132, 141-144.	CBS 106.47	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N. & Frisvad, J.C. (2020). Classification of aspergillus, penicillium, talaromyces and related genera (eurotiales): an overview of families, genera, subgenera, sections, series and species. Studies in Mycology, 95.
Fungi	*Ascomycota*	*Aspergillaceae*	*Aspergillus*	*Aspergillus niger*		Alcoholic Beverages	Nout, R. (2000). Useful role of of fungi in food processing. In: Samson, R.A., Hoekstra, E.S., Frisvad, J.C., Filtenborg, O. (Eds.), Introduction to food- and airborne fungi. 6th ed. Centraalbureau voor Schimmelciultures, Utrecht.	CBS 51388	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N. & Frisvad, J.C. (2020). Classification of aspergillus, penicillium, talaromyces and related genera (eurotiales): an overview of families, genera, subgenera, sections, series and species. Studies in Mycology, 95.
Fungi	*Ascomycota*	*Aspergillaceae*	*Aspergillus*	*Aspergillus oryzae*		Plant Based	Bhumiratana, A., Flegel, T.W., Glinsukon, T., Somporan, W. (1980). Isolation and analysis of molds from soy sauce koji in Thailand. Appl Environ Microbiol. 39, 430-5. Miyake, Y., Ito, C., Itoigawa, M., Osawa, T. (2007). Isolation of the Antioxidant Pyranonigrin-A from Rice Mold Starters Used in the Manufacturing Process of Fermented Foods. Biosci Biotechnol Biochem. 71, 2515-21. Barbesgaaard, P., Heldt-Hansen, H.P., Diderichsen, B. (1992). On the safety of aspergillus oryzae: a review. Appl Microbiol Biotechnol. 36, 569-572.	CBS 100925	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N. & Frisvad, J.C. (2020). Classification of aspergillus, penicillium, talaromyces and related genera (eurotiales): an overview of families, genera, subgenera, sections, series and species. Studies in Mycology, 95.
Fungi	*Ascomycota*	*Aspergillaceae*	*Aspergillus*	*Aspergillus sojae*		Plant Based	Miyake, Y., Ito, C., Itoigawa, M., Osawa, T. (2007). Isolation of the Antioxidant Pyranonigrin-A from Rice Mold Starters Used in the Manufacturing Process of Fermented Foods. Biosci Biotechnol Biochem. 71, 2515-21.	CBS 100928	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N. & Frisvad, J.C. (2020). Classification of aspergillus, penicillium, talaromyces and related genera (eurotiales): an overview of families, genera, subgenera, sections, series and species. Studies in Mycology, 95.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Aspergillaceae*	*Eurotium*	*Eurotium chevalieri*		Alcoholic Beverages	Cui, X.X., Bai, F.R., YU, X.J., Yao. S. (2019). Aroma characteristics of Eurotium chevalieri CICC 41584 and its applicationin aroma Baijiu Daqu production[J]. Food and Fermentation Industries, 45(21): 60-67. (in Chinese)	CBS 522.65	Samson, R.A., Visagie, C.M., Houbraken, J.J., Hong, S.B. & Frisvad, J.C. (2014). Phylogeny, identification and nomenclature of the genus aspergillus. Studies in Mycology, 78(4), 141-173.
Fungi	*Ascomycota*	*Aspergillaceae*	*Eurotium*	*Eurotium cristatum*		Plant Based	Peng, Y., Xiong, Z., Li, J., Huang, J., Teng, C., Gong, Y., Liu, Z. (2014). Water extract of the fungi from Fuzhuan brick tea improves the beneficial function on inhibiting fat deposition. Int J Food Sci Nutr. 65(5):610-4	NRRL 4222	Raper, K.B., Fennell, D.I. (1965). The Genus Aspergillus:169
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium biforme*		Meat	Lo, Y.C. (2019). Evolution of Penicillium fungi: adaptation and degeneration in fermented food environments. Thèse présentée pour une soutenance à Orsay, le 25 Juin	CBS 297.48	Biourge, P. (1923). Les moissisures du groupe Penicillium Link. La Cellule. 33:7-331. Giraud et al. (2010). Microsatellite loci to recognize species for the cheese starter and contaminating strains associated with cheese manufacturing
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium biforme*		Dairy	Ropars, J., Didiot, E., de la Vega, R.C.R., Bennetot, B., Coton, M., Poirier, E., Coton, E., Snirc, A., Le Prieur, S., Giraud, T. (2020). Domestication of the Emblematic White Cheese-Making Fungus Penicillium camemberti and Its Diversification into Two Varieties. Curr Biol Nov 16;30(22):4441-4453.e4. doi: 10.1016/j. cub.2020.08.082. Epub 2020 Sep 24.	CBS 297.48	Giraud et al. (2010). Microsatellite loci to recognize species for the cheese starter and contaminating strains associated with cheese manufacturing
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium biforme*		Dairy	Ropars et al. (2012). A taxonomic and ecological overview of cheese fungi	CBS 297.48	Giraud et al. (2010). Microsatellite loci to recognize species for the cheese starter and contaminating strains associated with cheese manufacturing
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium camemberti*		Dairy	Ropars, J., Didiot, E., de la Vega, R.C.R., Bennetot, B., Coton, M., Poirier, E., Coton, E., Snirc, A., Le Prieur, S., Giraud, T. (2020). Domestication of the Emblematic White Cheese-Making Fungus Penicillium camemberti and Its Diversification into Two Varieties. Curr Biol Nov 16;30(22):4441-4453.e4. doi: 10.1016/j. cub.2020.08.082. Epub 2020 Sep 24.	CBS 299.48	Thom, C. (1906). Fungi in cheese ripening; Camembert and Roquefort. Bull. Bur. Anim. Ind. US Dep. Agric. 82, 33.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium camemberti*		Dairy	Moreau, C. (1979). Nomenclature des Penicillium utiles à la préparation du Camembert. Le Lait 59, 219-233.	CBS 299.48	Thom, C. (1906). Fungi in cheese ripening; Camembert and Roquefort. Bull. Bur. Anim. Ind. US Dep. Agric. 82, 33.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium caseifulvum*		Dairy	Suhr, K.I., Haasum, I., Steenstrup, L.D., Larsen, T.O. (2020). Factors Affecting Growth and Pigmentation of Penicillium caseifulvum. J. of dairy sciencevolume 85, issue 11, P2786-2794, November 01.	CBS 101134	Lund, F., Filtenborg, O., Frisvad, J.C. (1998). Penicillium caseifulvum, a new species found on fermented blue cheese. J. Food Mycol. 2, 95-100.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium caseifulvum*		Dairy	Lund, F., Filtenborg, O., Frisvad, J.C. (1998). Penicillium caseifulvum, a new species found on fermented blue cheese. J. Food Mycol. 2, 95–100	CBS 101134	Lund, F., Filtenborg, O., Frisvad, J.C. (1998). Penicillium caseifulvum, a new species found on fermented blue cheese. J. Food Mycol. 2, 95-100.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium chrysogenum*		Dairy	Lund, F., Filtenborg, O., Frisvad, J.C. (1995). Associated mycoflora of cheese. Food Microbiol.12, 173-180.	CBS 306.48	Thom, C. (1910). U.S.D.A. Bureau of Animal Industry Bulletin 118, 1-107.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium commune*		Dairy	Lund, F., Filtenborg, O., Frisvad, J.C. (1995). Associated mycoflora of cheese. Food Microbiol.12, 173-180.	CBS 216.30	Thom, C. (1910). U.S.D.A. Bureau of Animal Industry Bulletin 118, 1-107.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium fuscoglaucum*		Meat	Lo, Y-C. (2019). Evolution of Penicillium fungi: adaptation and degeneration in fermented food environments. Thèse présentée pour une soutenance à Orsay, le 25 Juin.	CBS 261.29	Biourge, P. (1923). Les moissisures du groupe Penicillium Link. La Cellule. 33:7-331. Giraud et al. (2010). Microsatellite loci to recognize species for the cheese starter and contaminating strains associated with cheese manufacturing
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium fuscoglaucum*		Dairy	Ropars et al. (2012). A taxonomic and ecological overview of cheese fungi	CBS 261.29	Giraud et al. (2010). Microsatellite loci to recognize species for the cheese starter and contaminating strains associated with cheese manufacturing

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium nalgiovense*		Dairy	Mrázek, J., Pachlová, V., Buňka, F., Černíková, M., Dráb, V., Bejblová, M., Staněk, K., Buňková, L. (2016). Effects of different strains Penicillium nalgiovense in the Nalžovy cheese during ripening. J Sci Food Agric May;96(7):2547-54. doi: 10.1002/jsfa.7375. Epub 2015 Sep 11.	CBS 352.48	Laxa, O. (1932). Über die Reifung des Ellischauer Käses Zentralblatt für Bakteriologie und Parasitenkunde, Abteilung 2, 86, 160-165.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium nalgiovense*		Meat	Farber, P., Geisen, R. (1994). Antagonistic Activity of the Food-Related Filamentous Fungus Penicillium nalgiovense by the Production of Penicillin. Appl Environ Mmicrobiol. 60, 3401-3404.	CBS 352.48	Laxa, O. (1932). Über die Reifung des Ellischauer Käses Zentralblatt für Bakteriologie und Parasitenkunde, Abteilung 2, 86, 160-165.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium roqueforti*		Dairy	Dumas, E., Feurtey, A., de la Vega, R.C.R., Le Prieur, S., Snirc, A., Coton, M., Thierry, A., Coton, E., Le Piver, M., Roueyre, D., Ropars, J., Branca, A., Giraud, T. (2020). Independent domestication events in the blue-cheese fungus Penicillium roqueforti. Mol Ecol Jul;29(14):2639-2660. doi: 10.1111/mec.15359. Epub 2020 Feb 3.	CBS 221.30	Thom, C. (1906). Fungi in cheese ripening; Camembert and Roquefort. Bull. Bur. Anim. Ind. US Dep. Agric. 82, 33.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium roqueforti*		Dairy	Moreau, C. (1980). Le Penicillium roqueforti, morphologie, physiologie, intérêt en industrie fromagère, mycotoxines. (Révision bibliographique). Lait 60, 254-271.	CBS 221.30	Thom, C. (1906). Fungi in cheese ripening; Camembert and Roquefort. Bull. Bur. Anim. Ind. US Dep. Agric. 82, 33.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium salamii*		Meat	Magistà, D., Ferrara, M., Del Nobile, M.A., Gammariello, D., Conte, A., Perrone, G. (2016). A new promising fungal starter for salami production. Int J Food Microbiol Aug 16;231:33-41. doi: 10.1016/j. ijfoodmicro.2016.04.029. Epub 2016 Apr 27. Penicillium salamii strain ITEM 15302:	CBS 135391	Perrone, G. et al. (2015). Penicillium salamii, a new species occuring during seasoning of dry-cured meat International, International journal of food microbiology 193 (2015) 91-98.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium salamii*		Meat	Magista, D. et al. (2016). Penicillium salamii strain ITEM15302 : a new promising fungal staer for salami production, International journal of food microbiology 231, 33-41.	CBS 135391	Perrone, G. et al. (2015). Penicillium salamii, a new species occuring during seasoning of dry-cured meatInternational, International journal of food microbiology 193 (2015) 91-98.
Fungi	*Ascomycota*	*Aspergillaceae*	*Penicillium*	*Penicillium solitum*		Meat	Frisvad, J.C., Smedsgaard, J., Larsen, T.O., Samson, R.A. (2004). Mycotoxins, drugs and other extrolites produced by species in Penicillium subgenus Penicillium. Stud. Mycol., 49, 201-241.	CBS 288.36	Westling, R. (1911). Über die grünen Spezies der Gattung Penicillium Journal: Arkiv før Botanik 11, 1-156.
Fungi	*Ascomycota*	*Cordycipitaceae*	*Akanthomyces*	*Akanthomyces lecanii*		Dairy	Lund, F., Filtenborg, O., Frisvad, J.C. (1995). Associated mycoflora of cheese. Food Microbiology 12, 173-180.	CBS 102067	Kepler, R.M., Jennifer, L.A.J., Hywel-Jones, N.L., Alisha, Q.C., Gi-Ho, S. & Rehner, S.A. et al. (2017). A phylogenetically-based nomenclature for cordycipitaceae (hypocreales). Ima Fungus, 8(2), 335-353.
Fungi	*Ascomycota*	*Debaryomycetaceae*	*Meyerozyma*	*Meyerozyma guilliermondii*		Plant Based	Thin Thin, W., Supawan, W., Apinya, A. et al. (2013). Co-culturing of Pichia guilliermondii enhanced volatile flavor compound formation by Zygosaccharomyces rouxii in the model system of Thai soy sauce fermentation.[J]. International Journal of Food Microbiology, 2013, 160(3):282-9.	CBS 2030	Kurtzman, C.P., Suzuk, M. (2010). Phylogenetic analysis of ascomycete yeasts that form coenzyme Q-9 and the proposalof the new genera Babjeviella, Meyerozyma, Millerozyma, Priceomyces, and Scheffersomyces. Mycoscience January 2010, Volume 51, Issue 1, pp 2-14
Fungi	*Ascomycota*	*Dipodascaceae*	*Geotrichum*	*Geotrichum candidum*		Dairy	Mounier, J., Monnet, C., Vallaeys, T., Arditi, R., Sarthou, A.S., Hélias, A., Irlinger, F. (2008). Microbial interactions within a cheese microbial community. Appl Environ Microbiol. 74, 172-81 Gueguen, M., Lenoir, J. (1975). Aptitude de l'espèce Geotrichum candidum à la production d'enzymes protéolytiques. Le Lait 55 (543-544) 145-162	CBS 178.71	De Hoog, G.S., Smith, M.T. (2004). Ribosomal gene phylogeny and species delimitation in Geotrichum and its teleomorphs. Stud Mycol 50, 489–515.
Fungi	*Ascomycota*	*Dipodascaceae*	*Geotrichum*	*Geotrichum candidum*		Meat	Castellari, C., Quadrelli, A.M., Laich, F. (2010). Surface mycobiota on Argentinean dry fermented sausages. Int J Food Microbiol. 142, 149-55	CBS 178.71	De Hoog, G.S., Smith, M.T. (2004). Ribosomal gene phylogeny and species delimitation in Geotrichum and its teleomorphs. Stud Mycol 50, 489–515.
Fungi	*Ascomycota*	*Dipodascaceae*	*Geotrichum*	*Geotrichum fragrans*		Dairy	Marcellino, N., Beuvier, E., Grappin, R., Gueguen, M., Benson, D.R. (2001). Diversity of Geotrichum candidum Strains Isolated from Traditional Cheesemaking Fabrications in France Applied and Environmental Microbiology, Oct. 2001, p. 4752–4759	CBS 152.25	Alper, I., Frenette, M., Labrie, S. (2011). Fungal biology 115, 1259-1269, 10 September 2011 Ribosomal DNA polymorphisms in the yeast Geotrichum candidum

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Dipodascaceae*	*Yarrowia*	*Yarrowia lipolytica*		Dairy	Gkatzionis, K., Hewson, L., Hollowood, T., Hort, J., Christie E.R., Linforth, R.S.T. (2013). Effect of Yarrowia lipolytica on blue cheese odour development: Flash profile sensory evaluation of microbiological models and cheeses. International Dairy Journal, Volume 30, Issue 1, May 2013, Pages 8-13	CBS 6124	Van de Walt, J.P., Von Arx, J.A. (1980). The yeast genus Yarrowia gen. nov. Antonie van Leeuwenhoek 46, 517-521.
Fungi	*Ascomycota*	*Dipodascaceae*	*Yarrowia*	*Yarrowia lipolytica*		Dairy	Boekhout, T., Robert, V., (Eds.). (2003). Yeasts in food: Beneficial and detrimental aspects. Behr's Verlag, Hamburg.	CBS 6124	Van de Walt, J.P., Von Arx, J.A. (1980). The yeast genus Yarrowia gen. nov. Antonie van Leeuwenhoek 46, 517-521.
Fungi	*Ascomycota*	*Incertae sedis*	*Diutina*	*Diutina rugosa*		Dairy	Seiler, H., Busse, M. (1990). The yeasts of cheese brines. Int J Food Microbiol. 11(3-4):289-303.	CBS 613	Khunnamwong, P., Lertwattanasakul, N., Jindamorakot, S., Limtong, S., Lachance, M-A. (2015). Description of diutina gen. nov. diutina siamensis, f.a. sp. nov. and reassignment of candida catenulata, candida mesorugosa, candida neorugosa, candida pseudorugosa, candida ranongensis, candida rugosa and candida scorzettiae to the genus diutina. International Journal of Systematic & Evolutionary Microbiology, 65(12), 4701.
Fungi	*Ascomycota*	*Incertae sedis*	*Starmerella*	*Starmerella etchellsii*		Plant Based	Coton, E., Coton, M., Levert, D., Casaregola, S., Sohier, D. (2006). Yeast ecology in French cider and black olive natural fermentations. Int J Food Microbiol. Apr 15;108(1):130-5.	CBS 1750	Santos, A.R.O., Leon, M.P., Barros, K.O., Freitas, L.F.D., Rosa, C.A. (2018). Starmerella camargoi f.a. sp. nov. starmerella ilheusensis f.a. sp. nov. starmerella litoralis f.a. sp. nov. starmerella opuntiae f.a. sp. nov. starmerella roubikii f.a. sp. nov. and starmerella vitae f.a. sp. nov. isolated from flowers and bees, and transfer of related candida species to the genus starmerella as new combinations. International Journal of Systematic and Evolutionary Microbiology, 68(4).
Fungi	*Ascomycota*	*Incertae sedis*	*Starmerella*	*Starmerella stellata*		Alcoholic Beverages	Charoenchai, C., Fleet, G.H., Henschke, P.A., Todd, B.E.N. (1997). Screening of non-Saccharomyces wine yeasts for the presence of extracellular hydrolytic enzymes, Australian Journal of Grape and Wine Research Vol. 3,p. 2-9	ATCC 10673 - CBS 157	Santos, A.R.O., Leon, M.P., Barros, K.O., Freitas, L.F.D., Rosa, C.A. (2018). Starmerella camargoi f.a. sp. nov. starmerella ilheusensis f.a. sp. nov. starmerella litoralis f.a. sp. nov. starmerella opuntiae f.a. sp. nov. starmerella roubikii f.a. sp. nov. and starmerella vitae f.a. sp. nov. isolated from flowers and bees, and transfer of related candida species to the genus starmerella as new combinations. International Journal of Systematic and Evolutionary Microbiology, 68(4).
Fungi	*Ascomycota*	*Microascaceae*	*Scopulariopsis*	*Scopulariopsis flava*		Dairy	Ropars, J., Cruaud, C., Lacoste, S., Dupont, J. (2012). Int J Food Microbiol. 2012. Apr 16;155(3):199-210. A taxonomic and ecological overview of cheese fungi.	CBS 207.61	Morton, F.J., Smith, G. (1963). Mycological Papers 86: 1-96.
Fungi	*Ascomycota*	*Microascaceae*	*Scopulariopsis*	*Scopulariopsis flava*		Dairy	Spotti, E., Berni, E., Cacchioli, C. (2008). Characteristics and Applications of Molds. Meat Biotechnology Part II, 181-195 Moreau, C., 1979. Nomenclature des Penicillium utiles à la préparation du Camembert. Lait 59 219-233	CBS 207.61	Morton, F.J., Smith, G. (1963). Mycological Papers 86: 1-96.
Fungi	*Ascomycota*	*Nectriaceae*	*Bisifusarium*	*Bisifusarium domesticum*		Dairy	Ratomahenina, R., Van den Booms, S., Galzy, P., Dieu, B. (1995). Study of growth parameters of Cylindrocarpon sp., a mould isolated from saint nectaire cheese. Chem Mikrobiol Technol Lebens 17, 169-171.	CBS 434.34	Lombard, L., van der Merwe, N.A. et al. (2015). Generic concepts in nectriaceae - sciencedirect. Studies in Mycology, 80(80), 189-245.
Fungi	*Ascomycota*	*Nectriaceae*	*Fusarium*	*Fusarium venenatum*		Dairy	Thrane, U. (2007). Fungal protein for food. In: Dijksterhuis, J., Samson., R.A. (Eds.), Food Mycology. A multifaceted approach to fungi and food. CRC Press, Boca Raton, pp. 353-360.	CBS 458.93	Nirenberg, H.I. (1995). Morphological differentiation of Fusarium sambucinum Fuckel sensu stricto, F. torulosum (Berk. & Curt.) Nirenberg comb. nov. and F. venenatum Nirenberg sp. nov. Mycopathologia 129, 131-141.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida intermedia*		Dairy	Nahabieh, F. and Schmidt, J.L. (1990). Study of the yeast flora composition of some wide varieties of goat cheese. Lait. 70, 325-343.	CBS 572	Langeron, M., Guerra, P. (1938). Nouvelles recherches de zymologie médicale. Annales de Parasitologie Humaine Comparée. 16(5):429-476
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida mogii*		Plant Based	Chen, X., Yan, M., Xie, F., Dai, J., Li, D. & Wang, Z. et al. (2014). Biotin enhances salt tolerance of torulopsis mogii. Annals of Microbiology, 65(1), 393-398.	CBS 5713	Kurtzman, C.P., Fell, J.W., Boekhout, T., Robert, V. (2011). Methods for isolation, phenotypic characterization and maintenance of yeasts. In: Fell JW, Boekhout T (eds) The Yeasts, A Taxonomic Study (Kurtzman CP, 5th edn. Elsevier, Amsterdam, pp 987-1278.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida oleophila*		Alcoholic Beverages	Droby, S., Cohen, L., Davis, A., Weiss, B., Hores, B., Chalutz, E., Kotz, H., Kerantzur, M., Shachnai, A. (1998). Commercial testing of Aspire: a yeast preparation for the biological control of postharvest decay of citrus. Biol. Control 12, 97-101	CBS 2219	Montrocher, R. (1967). Quelques nouvelles espèces et variétés du genre Candida (Levures asporogènes). Rev Mycol 32 69-92
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida sake*		Dairy	Nahabieh, F. and Schmidt, J.L. (1990). Study of the yeast flora composition of some wide varieties of goat cheese. Lait. 70, 325-343.	CBS 159	Meyer, S.A., Ahearn, D.G. (1983): Validation of the names of some Candida species. Mycotaxon 17: 297-298
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida tropicalis*		Plant Based	Coulin, P., Farah, Z., Assanvo, J., Spillmann, H., Puhan, Z. (2006). Characterisation of the microflora of attiéké, a fermented cassava product, during traditional small-scale preparation. Int J Food Microbiol 106 131–6	ATCC 4563	Berkhout, C.M. (1923). De schimmelgeslachten Monilia, Oidium, Oospora en Torula: 44
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida zemplinina*		Alcoholic Beverages	Urso, R., Rantsiou, K., Dolci Rolle, L., Comi, G., Cocolin, L. (2008). Yeast biodiversity and dynamics during sweet wine production as determined by molecular methods. FEMS Yeast Res 8 1053–1062	CBS 9494	Sipiczki, M. (2003). Candida zemplinina sp. nov., an osmotolerant and psychrotolerant yeast that ferments sweet botrytized wines. Int J System Evol Microbiol 53: 2079–2083.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Candida*	*Candida zeylanoides*		Dairy	Seiler, H., Busse, M. (1990). The yeasts of cheese brines. Int. J. Food Microbiol., 11(3-4), 289-303	ATCC 20356	Tsui, T.H.M., Daniel, H.M., Robert, V., Meyer, W. (2008). Re-examining the phylogenyof clinically relevant Candida species and allied genera based on multigene analyses. FEMS Yeast Res 8 651–659 Kurtzman, C.P., Suzuki, M. (2010). Phylogenetic analysis of ascomycete yeasts that form coenzyme Q-9 and the proposal of the new genera Babjeviella, Meyerozyma, Millerozyma, Priceomyces, and Scheffersomyces. Mycoscience 51, 2-14
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Cyberlindnera*	*Cyberlindnera jadinii*		Dairy	Thrane, U. (2007). Fungal protein for food. In: Dijksterhuis, J., Samson, R.A. (Eds.), Food Mycology. A multifaceted approach to fungi and food. CRC Press, Boca Raton, pp. 353-360.	CBS 5609	Minter, D.W. (2009). Cyberlindnera, a replacement name for Lindnera Kurtzman et al., nom. illegit. Mycotaxon. 110, 473-476.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Cyberlindnera*	*Cyberlindnera mrakii*		Alcoholic Beverages	Erten, H., Tanguler, H. (2010). Influence of Williopsis saturnus yeasts in combination with Saccharomyces cerevisiae on wine fermentation. Lett Appl Microbiol. 50, 474-9.	CBS 1707	Kurtzman, C.P., Robnett, C.J. (2010). Systematics of methanol assimilating yeasts and neighboring taxa from multigene sequence analysis and the proposal of Peterozyma gen. nov., a new member of the Saccharomycetales. FEMS Yeast Res. 10, 353-61.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Debaryomyces*	*Debaryomyces hansenii*		Dairy	Geronikou, A., Srimahaeak, T., Rantsiou, K., Triantafillidis, G., Larsen, N., Jespersen, L. (2020). Occurrence of Yeasts in White-Brined Cheeses: Methodologies for Identification, Spoilage Potential and Good Manufacturing Practices. Front Microbiol. Oct 15;11:582778. doi: 10.3389/fmicb.2020.582778. PMID: 33178163; PMCID: PMC7593773.	CBS 767	Jacques, N., Mallet, S., Casaregola, S. (2009). Delimitation of the species of the Debaryomyces hansenii complex by intron sequence analysis. Int J Syst Evol Microbiol. 59(Pt 5), 1242-51
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Debaryomyces*	*Debaryomyces hansenii*		Plant Based	Arroyo-López, F.N., Querol, A., Bautista-Gallego, J., Garrido-Fernández, A. (2008). Role of yeasts in table olive production. Int J Food Microbiol. Dec 10;128(2):189-96. doi: 10.1016/j. ijfoodmicro.2008.08.018. Epub 2008 Sep 5. PMID: 18835502.	CBS 767	Jacques, N., Mallet, S., Casaregola, S. (2009). Delimitation of the species of the Debaryomyces hansenii complex by intron sequence analysis. Int J Syst Evol Microbiol. 59(Pt 5), 1242-51

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Debaryomyces*	*Debaryomyces hansenii*		Meat	Laranjo, M., Potes, M.E., Elias, M. (2019). Role of Starter Cultures on the Safety of Fermented Meat Products. Front Microbiol. 2019 Apr 26;10:853. doi: 10.3389/fmicb.2019.00853. PMID: 31133993; PMCID: PMC6524729.	CBS 767	Jacques, N., Mallet, S., Casaregola, S. (2009). Delimitation of the species of the Debaryomyces hansenii complex by intron sequence analysis. Int J Syst Evol Microbiol. 59(Pt 5), 1242-51
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Debaryomyces*	*Debaryomyces hansenii*		Alcoholic Beverages	Charoenchai, C., Fleet, G.H., Henschke, P.A., Todd, B.E.N. (1997). Screening of non-Saccharomyces wine yeasts for the presence of extracellular hydrolytic enzymes, Australian Journal of Grape and Wine Research Vol. 3,p. 2-9	CBS 767	Jacques, N., Mallet, S., Casaregola, S., (2009). Delimitation of the species of the Debaryomyces hansenii complex by intron sequence analysis. Int J Syst Evol Microbiol. 59(Pt 5), 1242-51
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Dekkera*	*Dekkera bruxellensis*		Alcoholic Beverages	Boekhout, T., Robert, V. (Eds.). (2003). Yeasts in food: Beneficial and detrimental aspects. Behr's Verlag, Hamburg.	CBS 74	Van der Walt, J.P. (1964). Dekkera, a new genus of the Saccharomycetaceae. Antonie van Leeuwenhoek 30, 273-280.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Dekkera*	*Dekkera claussenii*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	ATCC 10562	Roder, C., Konig, H., Frohlich, J. (2007). Species-specific identification of Dekkera/ Brettanomyces yeasts by fluorescently labeled DNA probes targeting the 26S rRNA FEMS Yeast Res 7(6), 1013-1026.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Diutina*	*Diutina catenulata*		Dairy	Roostita, R., Fleet, G.H. (1996). The occurrence and growth of yeasts in Camembert and blue-veined cheeses. Int. J. Food Microbiol. Vol 28. 393-404	CBS 565	Khunnamwong, P., Lertwattanasakul, N., Jindamorakot, S., Limtong, S. and Lachance, M.A. (2015). Description of Diutina gen. Nov., Diutina siamensis, f.a. sp. Nov. and reassignment of Candida catenulata, Candida mesorugosa, Candida neorugosa, Candida pseudorugosa, Candida ranongensis, Candida rugosa and Candida scorzettiae to the genus Diutina. Int. J. Syst. Evol. Microbiol. 65, 4701-4709. - Diddens, H.A., & Lodder, J., 1942
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Hanseniaspora*	*Hanseniaspora guilliermondii*		Alcoholic Beverages	Moreira, N., Mendes, F., Guedes de Pinho, P., Hogg, T., Vasconcelos, I. (2008). Heavy sulphur compounds, higher alcohols and esters production profile of Hanseniaspora uvarum and Hanseniaspora guilliermondii grown as a pure and mixed cultures in grape must. Int J Food Microbiol 124: 231–238.	CBS 465	Pijper, A. (1928). [A new Hanseniaspora] Verhandelingen, Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Natuurkunde 37 868-871
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Hanseniaspora*	*Hanseniaspora osmophila*		Alcoholic Beverages	Viana, F., Gil, J.V., Genovés, S., Vallés, S., Manzanares, P. (2008). Rational selection of non-Saccharomyces wine yeasts for mixed starters based on ester formation and enological traits. Food Microbiol 25: 778–785.	CBS 313	Phaff, H.J., Miller, M.W., Shifrine, M. (1956). The taxonomy of yeasts isolated from Drosophila in the Yosemite region of California. Antonie van Leeuwenhoek 22 145-161
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Hanseniaspora*	*Hanseniaspora uvarum*		Alcoholic Beverages	Moreira, N., Mendes, F., Guedes de Pinho, P., Hogg, T., Vasconcelos, I. (2008). Heavy sulphur compounds, higher alcohols and esters production profile of Hanseniaspora uvarum and Hanseniaspora guilliermondii grown as a pure and mixed cultures in grape must. Int J Food Microbiol 124: 231–238.	CBS 314	Kreger-van Rij, N.J.W. (1984). The Yeasts: a taxonomic study Edition#3 1-1082
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kazachstania*	*Kazachstania africana*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	ATCC 22294	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kazachstania*	*Kazachstania exigua*		Dairy	Zhou, J., Liu, X., Jiang, H., Dong, M. (2009). Analysis of the microflora in Tibetan kefir grains using denaturing gradient gel electrophoresis. Food Microbiol. 26, 770-5.	CBS 379	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kazachstania*	*Kazachstania exigua*		Bakery	Ottogalli, G., Galli, A., Foschino, R. (1996). Italian bakery products obtained with sourdough : Characterization of the typical microflora. Advances in food sciences 18, 131-144.	CBS 379	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kazachstania*	*Kazachstania humilis*		Bakery	Valmorri, S. (2010). Yeast microbiota associated with spontaneous sourdough fermentations in the production of traditional wheat sourdough breads of the Abruzzo region (Italy). Antonie Van Leeuwenhoek 97(2):119-29.	CBS 5658	Jacques, N., Sarilar, V., Urien, C., Lopes, M.R., Morais, C.G. & Uetanabaro, A.P.T. et al. (2016). Three novel ascomycetous yeast species of the kazachstania clade, kazachstania saulgeensis sp nov. kazachstania serrabonitensis sp nov and kazachstania australis sp nov reassignment of candida humilis to kazachstania humilis f.a. comb. nov and candida pseudohumilis to kazachstania pseudohumilis f.a. comb. nov. Int. J. Syst. Evol. Microbiology., 66(12), 5192-5200.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kazachstania*	*Kazachstania unispora*		Dairy	Zhou, J., Liu, X., Jiang, H., Dong, M. (2009). Analysis of the microflora in Tibetan kefir grains using denaturing gradient gel electrophoresis. Food Microbiol. 26, 770-5. Wang, S.Y., Chen, H.C., Liu, J.R., Lin, Y.C., Chen, M.J. (2008). Identification of Yeasts and Evaluation of their Distribution in Taiwanese Kefir and Viili Starters. J Dairy Sci. 91, 3798-3805.	CBS 398	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kluyveromyces*	*Kluyveromyces lactis*		Dairy	Roostita, R., Fleet, G.H. (1996). The occurrence and growth of yeasts in Camembert and Blue-veined cheeses. Int. J. Food Micorbiol. 28, 393-404. Dujon, B. et al. (2004). Genome evolution in yeasts. Nature 430, 35-44.	CBS 683	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Kluyveromyces*	*Kluyveromyces marxianus*		Dairy	Roostita, R., Fleet, G.H. (1996). The occurrence and growth of yeasts in Camembert and Blue-veined cheeses. Int. J. Food Micorbiol. 28, 393-404.	CBS 712	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Lachancea*	*Lachancea fermentati*		Alcoholic Beverages	Romano, P., Suzzi, G., Domizio, P., Fatichenti, F. (1997). Secondary products formation as a tool for discriminating non-Saccharomyces wine strains. Strain diversity in non-Saccharomyces wine yeasts. Antonie Van Leeuwenhoek. 71(3):239-42.	CBS 707	Kurtzman, CP. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res 4 233-245.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Lachancea*	*Lachancea thermotolerans*		Alcoholic Beverages	Pando, I., Garcia, M.J., Zuniga, M., Uruburu, F. (1989). Dynamics of Microbial Populations during Fermentation of Wines from the Utiel-Requena Region of Spain. App Env Microbiol 539-541 Gonzalez, S.S., Barrio, E., Querol, A. (2007). Molecular identification and characterization of wine yeasts isolated from Tenerife. J Appl Microbiolo 102 1018-1025.	CBS 6340	Jacquier, A., Dujon, B. (1983). The intron of the mitochondrial 21S rRNA gene: distribution in different yeast species and sequence comparison between Kluyveromyces thermotolerans and Saccharomyces cerevisiae. Mol Gen Genet 192(3):487-99.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Metschnikowia*	*Metschnikowia pulcherrima*		Alcoholic Beverages	Charoenchai, C., Fleet, G.H., Henscke, P.A., Todd, B.E.N. (1997). Screening of non-Saccharomyces wine yeasts for the presene of extracellular hydrolytic enzymes. Aust. J. grape Wine Res. 3, 2-8	CBS 610	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia anomala*		Alcoholic Beverages	Larroque, M.N., Carrau, F., Fariña, L., Boido, E., Dellacassa, E., Medina, K. (2020). Effect of Saccharomyces and non-Saccharomyces native yeasts on beer aroma compounds. Int J Food Microbiol2021 Jan 16;337:108953. doi: 10.1016/j.ijfoodmicro.2020.108953. Epub 2020 Nov 4	MB#530461 CBS 104	Hanseniaspora uvarum (Niehaus). (1984). Published in Shehata, Mrak & Phaff ex M.T. Sm. The Yeasts: a taxonomic study: 159 Originates from Hansens culture No. 27 of 13 May 1886
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia anomala*		Alcoholic Beverages	Charoenchai, C., Fleet, G.H., Henschke, P.A., Todd, B.E.N. (1997). Screening of non-Saccharomyces wine yeasts for the presence of extracellular hydrolytic enzymes, Australian Journal of Grape and Wine Research Vol. 3,p. 2-9	MB#530461 CBS 104	Hanseniaspora uvarum (Niehaus). (1984). Published in Shehata, Mrak & Phaff ex M.T. Sm. The Yeasts: a taxonomic study: 159 Originates from Hansens culture No. 27 of 13 May 1886
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia fermentans*		Dairy	Jun-Jun Yang, Chun-Feng Guo, Wu-Peng Ge, Qian-Ning Wang, Yue Zhang, Ying Chen, Jing Yang, Yuan Ma, Ya-Juan Yuan & Li-Hu Qin. (2014). Isolation and identification of yeast in yak milk dreg of Tibet in China. Dairy Science & Technology volume 94, pages 455–467	CBS 187	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses.FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia fermentans*		Dairy	Qing, M., Bai, M., Zhang, Y., Liu, W., Sun, Z., Zhang, H., Sun, T. (2010). Identification and biodiversity of yeasts from Qula in Tibet and milk cake in Yunnan of China. Wei Sheng Wu Xue Bao. 50, 1141-6. + 4 more ref.	CBS 187	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses.FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia fermentans*		Alcoholic Beverages	Bokulich, N.A., Bamforth, C. W. , Mills, D.A. (2012). Brewhouse-Resident Microbiota Are Responsible for Multi-Stage Fermentation of American Coolship Ale. PLoS ONE doi:10.1371/journal. pone.0035507	CBS 187	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses.FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kluyverii*		Alcoholic Beverages	Oliveira, I., Ferreira, V. (2019). Modulating Fermentative, Varietal and Aging Aromas of Wine Using non- Saccharomyces Yeasts in a Sequential Inoculation Approach. Microorganisms Jun 6;7(6):164. doi: 10.3390/microorganisms 7060164.	CBS 188	Kurtzman, C.P., Robnett, C.J. (1999). Identification and phylogeny of ascomycetous yeasts from analysis of nuclear large subunit (26S) ribosomal DNA partial sequences. Antonie van Leeuwenhoek 73, 331-71

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kluyverii*		Alcoholic Beverages	Bokulich, N.A., Bamforth, C.W. , Mills, D.A. (2012). Brewhouse-Resident Microbiota Are Responsible for Multi-Stage Fermentation of American Coolship Ale. PLoS ONE doi:10.1371/journal.pone.0035507 N'guessan, K.F., Brou, K., Jacques, N., Casaregola, S., Dje, K.M. (2011). Identification of yeast during alcoholic fermentation of tchapalo, a traditional sorghum beer from Côte d 'Ivoire. Antonie van LLeeuwenhoek 99, 855-864 DOI 10.1007/s 10482-011-9560-7	CBS 188	Kurtzman, C.P., Robnett, C.J. (1999). Identification and phylogeny of ascomycetous yeasts from analysis of nuclear large subunit (26S) ribosomal DNA partial sequences. Antonie van Leeuwenhoek 73, 331-71
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kluyverii*		Alcoholic Beverages	Pardo, I., Garcia, M.J., Zuniga, M., Uruburu, F. (1989). Dynamics of Microbial Populations during Fermentation of Wines from the Utiel-Requena Region of Spain. App Env Micro 539-541. Fleet, G.H., Lafon-Lafourcade, S. and Ribéreau-Gayon, P. (1984). Evolution of yeasts and lactic acid bacteria during fermentation and storage of Bordeaux wines. Appl. Environ. Microbiol., 48, 1034-1038.	CBS 188	Kurtzman, C.P., Robnett, C.J. (1999). Identification and phylogeny of ascomycetous yeasts from analysis of nuclear large subunit (26S) ribosomal DNA partial sequences. Antonie van Leeuwenhoek 73, 331-71
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kluyverii*		Plant Based	Aponte, M. (2010). Study of green Sicilian table olive fermentations through microbiological, chemical and sensory analyses. Food Microbiol., 27, 162-170.	CBS 188	Kurtzman, C.P., Robnett, C.J. (1999). Identification and phylogeny of ascomycetous yeasts from analysis of nuclear large subunit (26S) ribosomal DNA partial sequences. Antonie van Leeuwenhoek 73, 331-71
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kudriavzevii*		Alcoholic Beverages	Koricha, A.D., Han, D.Y., Bacha, K., Bai, F.Y. (2020). Diversity and distribution of yeasts in indigenous fermented foods and beverages of Ethiopia. J Sci Food Agric Jul;100(9):3630-3638. doi: 10.1002/jsfa.10391. Epub 2020 May 3.	CBS 5147	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kudriavzevii*		Dairy	Bai, M., Qing, M., Guo, Z., Zhang, Y., Chen, X., Bao, Q., Zhang, H., Sun, T.S. (2010). Occurrence and dominance of yeast species in naturally fermented milk from the Tibetan Plateau of China. Can J Microbiol. 56(9):707-14 El-Sharoud, W.M., Belloch, C., Peris, D., Querol, A. (2009). Molecular identification of yeasts associated with traditional Egyptian dairy products.J Food Sci. 74(7):M341-6.19	CBS 5147	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kudriavzevii*		Plant Based	Daniel, H.M., Vrancken, G., Takrama, J.F., Camu, N., De Vos, P., De Vuyst, L. (2009). Yeast diversity of Ghanaian cocoa bean heap fermentations.FEMS Yeast Res. 9(5):774-83.	CBS 5147	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kudriavzevii*		Plant Based	Osorio-Cadavid, E., Chaves-López, C., Tofalo, R., Paparella, A., Suzzi, G. (2008). Detection and identification of wild yeasts in Champús, a fermented Colombian maize beverage. Food Microbiol. 25(6):771-7 Padonou, W.S., Nielsen, D.S., Hounhouigan, J.D., Thorsen, L., Nago, M.C., Jakobsen, M. (2009). The microbiota of Lafun, an African traditional cassava food product. Int J Food Microbiol. 133(1-2):22-30.	CBS 5147	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.

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Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia kudriavzevii*		Alcoholic Beverages	del Monaco, S.M., Barda, N.B., Rubio, N.C. and Caballero, A.C. (2014). Selection and characterization of a Patagonian Pichia kudriavzevii for wine deacidification, Journal of Applied Microbiology, Vol. 117, p. 415-464 Li, S.S., Cheng, C., Li, Z., Chen, J.Y., Yan, B., Han, B.Z., Reeves, M. (2010). Yeast species associated with wine grapes in China. Int J Food Microbiol 138(1-2):85-90	CBS 5147	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia membranifaciens*		Plant Based	Azi, Fi. Tu, C., Meng, L., Zhiyu, L., Cherinet, M.T., Ahmadullah, Z., Dong, M. (2021). Metabolite dynamics and phytochemistry of a soy whey-based beverage bio-transformed by water kefir consortium.Food Chem Apr 16;342:128225. doi: 10.1016/j. foodchem.2020.128225. Epub 2020 Sep 30.	CBS 107	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. 8, 939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia membranifaciens*		Dairy	Shepherd, R., Rockey, J., Sutherland, I.W., Roller, S. (1995). Novel bioemulsifiers from microorganisms for use in foods. J Biotechnol. 40, 207-217.	CBS 107	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. 8, 939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia norvegensis*		Dairy	Koslowskyb, S.G.M., Velagica, S., Borsta, N., Bockelmann, W., Hellerb, K.J., Schererac, S. (2011). Anti-listerial potential of food-borne yeasts in red smear cheese. International Dairy Journal Volume 21, Issue 2, February 2011, Pages 83-89	ATCC 58681	Leask, B.G.S., Yarrow, D. (1976). Sabouraudia. Mar;14(1):61-3. Pichia norvegensis sp. nov.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia norvegensis*		Plant Based	Osimani, A., Garofalo, C., Aquilanti, L., Milanović, V., Clementi, F. (2015). Unpasteurised commercial boza as a source of microbial diversity.Int J Food Microbiol. 2015 Feb 2;194:62-70.	ATCC 58681	Leask, B.G.S., Yarrow, D. (1976). Sabouraudia. Mar;14(1):61-3. Pichia norvegensis sp. nov.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia occidentalis*		Plant Based	Taheur, F.B., Mansour, C., Jeddou, K.B., Machreki, Y., Kouidhi, B., Abdulhakim, J.A., Chaieb, K. (2020). Aflatoxin B 1 degradation by microorganisms isolated from Kombucha culture. Toxicon May;179:76-83. doi: 10.1016/j.toxicon.2020.03.004. Epub 2020 Mar 17.	CBS 5459	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia occidentalis*		Dairy	Ongol, M.P., Asano, K. (2009). Main microorganisms involved in the fermentation of Ugandan ghee. Int J Food Microbiol. 133(3):286-91. Seiler, H., Busse, M., 1990. The yeasts of cheese brines. Int. J. Food Microbiol., 11(3-4), 289-303	CBS 5459	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Pichia*	*Pichia occidentalis*		Plant Based	Arroyo-López, F.N., Durán-Quintana, M.C., Ruiz-Barba, J.L., Querol, A., Garrido-Fernández, A. (2006). Use of molecular methods for the identification of yeast associated with table olives. Food Microbiol. (8):791-6.	CBS 5459	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res. (6):939-54.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Candida saitoana*		Plant Based	Soni, S.K., Sandhu, D.K., Vikhu, K.S., Karma, N. (1986). Microbiological studies on dosa fermentation. Food Microbiol 3: 45–53.	CBS 940	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts, a Taxonomic Study [M]. United States of America, Fifth edition.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces bayanus*		Alcoholic Beverages	Rainieri, S., Kodama, Y., Kaneko, Y., Mikata, K., Nakao, Y. Ashikari, T. (2006). Pure and mixed genetic lines of Saccharomyces bayanus and Saccharomyces pastorianus and their contribution to the lager brewing strain genome. Appl Envir Microbiol 72, 3968-3974. Januszek, M., Satora, P., Wajda, L., Tarko, T. (2020). Saccharomyces bayanus Enhances Volatile Profile of Apple Brandies. Molecules Jul 8;25(14):3127.	CBS 395	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Dairy	Viljoen, B.C., Knox, A.M., De Jager, P.H., Lourens-Hattingh, A. (2003). Development of Yeast Populations during Processing and Ripening of Blue Veined Cheese. Food Technol. Biotechnol. 41 (4) 291–297.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Dairy	Roostita, R., Fleet, G.H. (1996). The occurrence and growth of yeasts in Camembert and Blue-veined cheeses. Int. J. Food Micorbiol. 28, 393-404.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Bakery	Lahue, C., Madden, A.A., Dunn, R.R., Smukowski Heil, C. (2020). History and Domestication of Saccharomyces cerevisiae in Bread Baking. Front Genet. Nov 11;11:584718. doi: 10.3389/fgene.2020.584718. PMID: 33262788; PMCID: PMC7686800.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Alcoholic Beverages	Krogerus, K., Gibson, B. (2020). A re-evaluation of diastatic Saccharomyces cerevisiae strains and their role in brewing. Appl Microbiol Biotechnol. May;104(9):3745-3756. doi: 10.1007/s00253-020-10531-0. Epub 2020 Mar 13. PMID: 32170387; PMCID: PMC7162825.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Alcoholic Beverages	Molina-Espeja, P. (2020). Next Generation Winemakers: Genetic Engineering in Saccharomyces cerevisiae for Trendy Challenges. Bioengineering (Basel). Oct 14;7(4):128. doi: 10.3390/bioengineering7040128. PMID: 33066502; PMCID: PMC7712467.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Plant Based	Annggriawan, R. (2017). Microbiological and food safety aspects of Tempeh prodcution in Indonesia. PhD thesis, Georg-August-University Göttingen, Germany.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces cerevisiae*		Plant Based	FAO. (1998). Fermented fruits and vegetables: A global perspective-Chapter 2: Basic principles of fermentation. FAO Agricultural Services Bulletin No. 134.	CBS 1171	Kurtzman, C.P., Robnett, C.J. (2003). Phylogenetic relationships among yeasts of the 'Saccharomyces complex' determined from multigene sequence analyses. FEMS Yeast Res. 3, 417-32. Kurtzman, C.P. (2003). Phylogenetic circumscription of Saccharomyces, Kluyveromyces and other members of the Saccharomycetaceae, and the proposal of the new genera Lachancea, Nakaseomyces, Naumovia, Vanderwaltozyma and Zygotorulaspora. FEMS Yeast Res. 4, 233-45.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces pastorianus*		Alcoholic Beverages	Troianou, V., Toumpeki, C., Dorignac, E., Kogkou, C., Kallithraka, S, Kotseridis, Y. (2019). Evaluation of Saccharomyces pastorianus impact to Sauvignon blanc chemical & sensory profile compared to different strains of S. cerevisiae/bayanus. BIO Web Conf Volume 12. https://doi.org/10.10.1051/bioconf/20191202025	ATCC 12752	Dunn, B., Sherlock, G. (2008). Reconstruction of the genome origins and evolution of the hybrid lager yeast Saccharomyces pastorianus. Genome research 18.10: 1610-1623.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces pastorianus*		Alcoholic Beverages	Meier Dornberg, T., Hutzler, Michel, M., Methner, F.M., Jacob, F. (2017). The Importance of a Comparative Characterization of Saccharomyces Cerevisiae and Saccharomyces Pastorianus Strains for Brewing. Fermentation 3, 41; doi:10.3390	ATCC 12752	Dunn, B., Sherlock, G. (2008). Reconstruction of the genome origins and evolution of the hybrid lager yeast Saccharomyces pastorianus. Genome research 18.10: 1610-1623.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomyces*	*Saccharomyces pastorianus*		Plant Based	FAO. (1998). Fermented fruits and vegetables: A global perspective-Chapter 2: Basic principles of fermentation. FAO Agricultural Services Bulletin No. 134.	ATCC 12752	Dunn, B., Sherlock, G. (2008). Reconstruction of the genome origins and evolution of the hybrid lager yeast Saccharomyces pastorianus. Genome research 18.10: 1610-1623.

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Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomycoides*	*Saccharomycodes ludwigii*		Alcoholic Beverages	Adamenko, K., Kawa-Rygielska, J., Kucharska, A.Z. (2020). Characteristics of Cornelian cherry sour non-alcoholic beers brewed with the special yeast Saccharomycodes ludwigii. Food Chem May 15;312:125968. doi: 10.1016/j.foodchem.2019.125968. Epub 2019 Dec 9.	ATCC 11313	Hansen, E.C. (1904). Zentbl. Bakt. ParasitKde, Abt. II 12(19-21): 538.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Saccharomycoides*	*Saccharomycodes ludwigii*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	ATCC 11313	Hansen, E.C. (1904). Zentbl. Bakt. ParasitKde, Abt. II 12(19-21): 538.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Schwanniomyces*	*Schwanniomyces vanrijiae*		Alcoholic Beverages	Garcia, A., Carcel, C., Dalau, L., Samson, A., Aguera, E., Agosin, E., Gunata, Z. (2002). Influence of a mixed culture with Debaryomyces vanriji and Saccharomyces cerevisiae on the volatiles in a Muscat wine. J Food Sci 67: 1138–1143.	CBS 3024	Kurtzman, C.P., Suzuki, M. (2010). Phylogenetic analysis of ascomycete yeasts that form coenzyme Q-9 and the proposal of the new genera Babjeviella, Meyerozyma, Millerozyma, Priceomyces, and Scheffersomyces. Mycoscience 51: 2-14.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Starmerella*	*Starmerella bombicola*		Alcoholic Beverages	Ciani, M., Maccarelli, F. (1998). Oenological properties of non-Saccharomyces yeasts associated with winemaking. World J Microb Biot 14: 199–203.	CBS 6009	Rosa, C.A., Lachance, M.A. (1998). The yeast genus Starmerella gen. nov. and Starmerella bombicola comb. nov., the teleomorph of Candida bombicola (Spencer, Gorin et Tullock) Meyer et Yarrow. Int J Syst Evol Microbiol 48 1413-1417.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Trigonopsis*	*Trigonopsis cantarellii*		Alcoholic Beverages	Toro, M.E., Vazquez, F. (2002). Fermentation behaviour of controlled mixed and sequential cultures of Candida cantarellii and Saccharomyces cerevisiae wine yeasts. World J Microb Biot 18: 347–354.	ATCC 36588	Kurtzman, C.P., Robnett, C.J. (2007). Multigene phylogenetic analysis of theTrichomonascus , Wickerhamiella and Zygoascus yeast clades, and the proposal of Sugiyamaella gen.nov. and14 newspecies combinations. FEMS Yeast Res 7 141–151
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Wickerhamomyces*	*Wickerhamomyces anomalus*		Meat	Liu, Y., Wan, Z., Yohannes, K.W., Yu, Q.Q., Yang, Z., Hongyan, L., Liu, J., Wang, J. (2021). Functional Characteristics of Lactobacillus and Yeast Single Starter Cultures in the Ripening Process of Dry Fermented Sausage. Front Microbiol 8;11:611260.	CBS 5759	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res 8:939-54
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Wickerhamomyces*	*Wickerhamomyces anomalus*		Alcoholic Beverages	Kurita, O. (2008). Increase of acetate ester-hydrolysing esterase activity in mixed cultures of Saccharomyces cerevisiae and Pichia anomala. J Appl Microbiol 104: 1051–1058.	CBS 5759	Kurtzman, C.P., Robnett, C.J., Basehoar-Powers, E. (2008). Phylogenetic relationships among species of Pichia, Issatchenkia and Williopsis determined from multigene sequence analysis, and the proposal of Barnettozyma gen. nov., Lindnera gen. nov. and Wickerhamomyces gen. nov. FEMS Yeast Res 8:939-54
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Wickerhamomyces*	*Wickerhamomyces pijperi*		Alcoholic Beverages	Zagorc, T., Maraz, A., Cadez, N., Povhe Jemec, K., Peter, G., Resnik, M., Nemanic, J., Raspor, P. (2001). Indigenous wine killer yeast and therir application as a starter culture in wine fermentation. Food Micro. 2001, 18, 441-451	CBS 2887	Kurtzman, C.P., Robnett, C.J. & Basehoar-Powers, E. (2008). Phylogenetic relationships among species of pichia, issatchenkia and williopsis determined from multigene sequence analysis, and the proposal of barnettozyma gen. nov., lindnera gen. nov. and wickerhamomyces gen. nov.. Fems Yeast Research, 8(6), 939-954.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygosaccharomyces*	*Zygosaccharomyces bisporus*		Vinegar	Solieri, L. & Giudici, P. (2008). Yeasts associated to traditional balsamic vinegar: ecological and technological features. International Journal of Food Microbiology, 125(1), 36-45.	CBS 702	Kurtzman, C.P., Fell, J.W., Boekhout, T., Robert, V. (2011). Methods for isolation, phenotypic characterization and maintenance of yeasts. In: Fell JW, Boekhout T (eds) The Yeasts, A Taxonomic Study (Kurtzman CP, 5th edn. Elsevier, Amsterdam, pp 937-947.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygosaccharomyces*	*Zygosaccharomyces kombuchaensis*		Alcoholic Beverages	Bellut, K., Michel, M., Zarnkow, M., Hutzler, M., Jacob, F., De Schutter, D.P., Daenen, l., Lynch, K.M., Zannini, E., Arendt. E.K. (2018). Application of Non-Saccharomyces Yeasts Isolated from Kombucha in the Production of Alcohol-Free Beer. Fermentation 4(3), 66.	CBS 8849	Hulin, M., Wheals, A. (2014). Rapid identification of Zygosaccharomyces with genus-specific primers. Int J Food Microbiol. 2014 Mar 3;173:9-13.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygosaccharomyces*	*Zygosaccharomyces kombuchaensis*		Plant Based	Jayabalan, R., Malbasa, R.V., Loncar, E.S., Vitas, J.S. and Sathishkumar, M. (2014). A Review on Kombucha Tea—Microbiology, Composition, Fermentation, Beneficial Effects, Toxicity, and Tea Fungus. Comprehensive Reviews in Food Science and Food Safety Vol. 13	CBS 8849	Hulin, M., Wheals, A. (2014). Rapid identification of Zygosaccharomyces with genus-specific primers. Int J Food Microbiol. Mar 3;173:9-13.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygosaccharomyces*	*Zygosaccharomyces rouxii*		Plant Based	Dai, J., Li, K., Song, N., Yao, W., Xia, H., Yang, Q., Zhang, X., Li,X., Wang, Z., Yao, L., Yang, S., Chen, X. (2020). Zygosaccharomyces rouxii, an Aromatic Yeast Isolated From Chili Sauce, Is Able to Biosynthesize 2-Phenylethanol via the Shikimate or Ehrlich Pathways. Front Microbiol. 11: 597454.	CBS 732	Lodder, J. & Kreger-van Rij, N.J.W. (1984). The Yeast: a Taxonomie Study p.462
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygosaccharomyces*	*Zygosaccharomyces rouxii*		Plant Based	Hesseltine, C.W., Shibasaki, K. (1961). MisoIII. Pure Culture Fermentation with Saccharomyces rouxii. Appl Microbiol. 9: 515–518 Suezawa, Y., Suzuki, M., Mori, H. (2008). Genotyping of a Miso and Soy Sauce Fermentation Yeast, Zygosaccharomyces rouxii, Based on Sequence Analysis of the Partial 26S Ribosomal RNA Gene and Two Internal Transcribed Spacers, Biosci Biotechnol Biochem. 72:2452-5. Solieri, L., Giudici, P. (2008). Yeasts associated to Traditional Balsamic Vinegar: ecological and technological features. Int J Food Microbiol 125(1):36-45.	CBS 732	Lodder, J. & Kreger-van Rij, N.J.W. (1984). The Yeast: a Taxonomie Study p.462
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygotorulaspora*	*Zygotorulaspora florentina*		Alcoholic Beverages	Lencioni, L., Romani, C., Gobbi, M., Comitini, F., Ciani, M., Domizio, P. (2016). Controlled mixed fermentation at winery scale using Zygotorulaspora florentina and Saccharomyces cerevisiae. Int J Food Microbiol 2016 Oct 3;234:36-44.	CBS 746	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology.
Fungi	*Ascomycota*	*Saccharomycetaceae*	*Zygotorulaspora*	*Zygotorulaspora florentina*		Dairy	Boekhout, T., Robert, V. (Eds.). (2003). Yeasts in food: Beneficial and detrimental aspects. Behr's Verlag, Hamburg.	CBS 647	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology.
Fungi	*Ascomycota*	*Saccharomycopsidaceae*	*Saccharomycopsis*	*Saccharomycopsis fibuligera*		Vinegar	Dong, K.F., Na, A.N., Dong, L.L.I., Deng, H.S., Che, J.T., Samp. (2016). Isolation and identification of yeats in daqu for aged vinegar production and their capacity for producing ethly alcohol and ethly acetate. Science and Technology of Food Industry, 37(10): 213-216. (in Chinese) Chi, Z., Zhe, C., Liu, G., Wang, F., Ju, L., Tong, Z. (2009). Saccharomycopsis fibuligera and its applications in biotechnology [J]. Biotechnology Advances, 27(4): 423-431.	CBS 329.83	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology
Fungi	*Ascomycota*	*Saccharomycopsidaceae*	*Saccharomycopsis*	*Saccharomycopsis fibuligera*		Alcoholic Beverages	Chang, S., Kzz, A., Xzc, A., Jgy, A. (2020). Effects of Saccharomycopsis fibuligera and Saccharomyces cerevisiae inoculation on small fermentation starters in Sichuan-style Xiaoqu liquor[J] .Food Res Int, 137: 109425. Sun, S., Zhai, L., Ling, X.U., Panpan, Y.U., X Bai, Yao, S. (2018). Application of Saccharomycopsis fibuligera CICC 33077 in the Production of High-Temperature Zhimaxiang Daqu. Liquor-Making Science & Technology, 289(07):76-82. (in Chinese)	CBS 329.83	Kurtzman, C.P., Fell, J.W., Boekhout, T. (2011). The Yeasts: A Taxonomic Study, 5th edition. 3 Vol. Amsterdam: Elsevier Science & Technology

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Ascomycota*	*Sarcosomataceae*	*Torulaspora*	*Torulaspora delbrueckii*		Alcoholic Beverages	Pando, I., Garcia, M.J., Zuniga, M., Uruburu, F. (1989). Dynamics of Microbial Populations during Fermentation of Wines from the Utiel-Requena Region of Spain. App. and Env. Microbiol. 539-541 Review Appl Microbiol Biotechnol 2018 Apr;102(7):3081-3094. The impact of Torulaspora delbrueckii yeast in winemaking. Santiago Benito 1	CLIB 230	Oda, Y., Yabuki, M., Tonomura, K., Fukunaga, M. (1997). Reexamination of Yeast Strains Classified as Torulaspora delbrueckii (Lindner). Int J Syst Bacteriol 47, 1102-1106
Fungi	*Ascomycota*	*Sarcosomataceae*	*Torulaspora*	*Torulaspora delbrueckii*		Dairy	Westall, S., Filreenborg ,O. (1998). Yeast occurance in Danish feta cheeses. Food Micro. 15, 215-222. Wyder, T.M., Spillmann, H., Puhan, Z., 1997. Investigation of yeast flora in dairy products. Food technol. biotechnol. 35, 4, 299-304.	CLIB 230	Oda, Y., Yabuki, M., Tonomura, K., Fukunaga, M. (1997). Reexamination of Yeast Strains Classified as Torulaspora delbrueckii (Lindner). Int J Syst Bacteriol 47, 1102-1106
Fungi	*Ascomycota*	*Schizosaccharomycetaceae*	*Schizosaccharomyces*	*Schizosaccharomyces pombe*		Alcoholic Beverages	Snow, P.G., Gallender, G.F. (1979). Deacidification of white table wines through partial fermentation by Schizosaccharomyces pombe. Am J Enol Viticult 30: 45–48.	CBS 356	Lindner, P. (1893). Schizosaccharomyces pombe n. sp., a new starter. Wochenschrift für Brauerei 10 1298-1300
Fungi	*Ascomycota*	*Sordariaceae*	*Neurospora*	*Neurospora sitophila*		Plant Based	Essers, A.J., Ebong, C., van der Grift, R.M., Nout, M.J., Otim-Nape, W., Rosling, H. (1995). Reducing cassava toxicity by heap-fermentation in Uganda. Int J Food Sci Nutr. 46(2):125-36.	CBS 381.50	Shear, G.L., Dodge, B.O. (1927). Life histories and heterothallism of the red bread-mold fungi of the Monilia sitophila group. J Agri Res 34(11) 1019-1041
Fungi	*Ascomycota*	*Trichomonascaceae*	*Blastobotrys*	*Blastobotrys adeninivorans*		Plant Based	Zhang, W., Yang, R., Fang, W., Yan, L., Lu, J., Sheng, J. (2016). Characterization of thermophilic fungal community associated with pile fermentation of Pu-erh tea.[J]. International journal of food microbiology,227.	CBS 8244	Kurtzman, C.P., Robnett, C.J. (2007). Multigene phylogenetic analysis of the Trichomonascus, Wickerhamiella and Zygoascus yeast clades, and the proposal of Sugiyamaella gen. nov. and 14 new species combinations.[J]. Fems Yeast Research, 7(1):141-151.
Fungi	*Ascomycota*	*Trichomonascaceae*	*Wickerhamiella*	*Wickerhamiella versatilis*		Dairy	Seiler, H., Busse, M. (1990). The yeasts of cheese brines. Int J Food Microbiol. 11:289-303	CBS 1752	Clara, De.V., Albaladejo, R.G., Guzmán, B., Steenhuisen, S-L., Johnson, S.D. & Herrera, C.M. et al. (2017). Flowers as a reservoir of yeast diversity: description of wickerhamiella nectarea f.a. sp. nov. and wickerhamiella natalensis f.a. sp. nov. from south african flowers and pollinators, and transfer of related candida species to the genus wickerhamiella as new combinations. Fems Yeast Research(5), 5.
Fungi	*Ascomycota*	*Trichomonascaceae*	*Wickerhamiella*	*Wickerhamiella versatilis*		Plant Based	van der Sluis, C., Mulder, A.N., Grolle, K.C., Engbers, G.H., ter Schure, E.G., Tramper, J., Wijffels, R.H. (2000). Immobilized soy-sauce yeasts: development and characterization of a new polyethylene-oxide support. J Biotechnol. 80:179-88. Suezawa ,Y., Suzuki, M. (2007). Bioconversion of Ferulic Acid to 4-Vinylguaiacol and 4-Ethylguaiacol and of 4-Vinylguaiacol to 4-Ethylguaiacol by Halotolerant Yeasts Belonging to the Genus Candida. Biosci Biotechnol Biochem. 71:1058-62	CBS 1752	Clara, De.V., Albaladejo, R.G., Guzmán, B., Steenhuisen, S-L., Johnson, S.D. & Herrera, C.M. et al. (2017). Flowers as a reservoir of yeast diversity: description of wickerhamiella nectarea f.a. sp. nov. and wickerhamiella natalensis f.a. sp. nov. from south african flowers and pollinators, and transfer of related candida species to the genus wickerhamiella as new combinations. Fems Yeast Research(5), 5.
Fungi	*Ascomycota*	*Wallemiaceae*	*Sporendonema*	*Sporendonema casei*		Meat	Scaramuzza, N., Diaferia, C., Berni, E. (2015). Monitoring the mycobiota of three plants manufacturing Culatello (a typical Italian meat product). Int J Food Micro. Volume 203, 16 June 2015, Pages 78-85.	CBS 355.29	Desmazières, J.B.H.J. (1827). Annales des Sciences Naturelles, Botanique 11: 246-249.
Fungi	*Ascomycota*	*Wallemiaceae*	*Sporendonema*	*Sporendonema casei*		Dairy	Ratomahenina, R., Chabalier, C., Galzy, P. (1994). Concerning Sporendonema casei Desmazieres [France, moulds in cheeses] Latte 19(6) 616-617	CBS 355.29	Desmazières, J.B.H.J. (1827). Annales des Sciences Naturelles, Botanique 11: 246-249.
Fungi	*Basidiomycota*	*Cystofilobasidiaceae*	*Cystofilobasidium*	*Cystofilobasidium infirmominiatum*		Dairy	Early, R. (1998). The technology of dairy products. Springer.	CBS 323	Hamamoto, M., Sugiyama, J., Komagata, K. (1988). Transfer of Rhodosporidium infirmominiatum to the genus Cystofilobasidium as Cystofilobasidium infirmominiatum comb. nov. J Gen Appl Microbiol 34, 271–278.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Basidiomycota*	*Mrakiaceae*	*Tausonia*	*Tausonia pullulans*		Plant Based	Batra, L.R. and Millner, P.D. (1974). Some Asian fermented foods and beverages and associated fungi. Mycologia, 66, 942-950.	CBS 2532	Liu, X-Z., Wang, Q-M., Göker, M. et al. (2015). Towards an integrated phylogenetic classification of the tremellomycetes. Studies in Mycology. Jun. 81: 85-147.
Fungi	*Zygomycota*	*Mucoraceae*	*Actinomucor*	*Actinomucor elegans*		Plant Based	Lu, J.M., Yu, R.C., Cheng, C.C. (1996). Purification and Some Properties of Glutaminase from A ctinomucor taiwanensis, Starter of Sufu[J]. Journal of the Science of Food & Agriculture, 1996, 70(4):509–514.	ATCC 22814	Walther, G., Pawłowska, J., Alastruey-Izquierdo, A., Wrzosek, M., Rodriguez-Tudela, J.L. & Dolatabadi, S. et al. (2013). DNA barcoding in mucorales: an inventory of biodiversity. Persoonia - Molecular Phylogeny and Evolution of Fungi,2013,30(3), 11-47.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor circinelloides*		Plant Based	Han, B.Z., Kuijpers, A.F.A., Thanh, N.V. & Nout, M.J.R. (2004). Mucoraceous moulds involved in the commercial fermentation of sufu pehtze. Antonie Van Leeuwenhoek, 85(3), 253-7.	CBS 195.68	Walther, G., Pawlowska, J., Alastruey-Izquierdo, A., Wrzosek, M. et al. (2013). DNA barcoding in Mucorales: an inventory of biodiversity. Persoonia, 2013, 30, 11-47.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor flavus*		Plant Based	Cheng, Y.Q., Hu, Q., Li, L.T. et al. (2009). Production of sufu, a traditional Chinese fermented soybean food, by fermentation with Mucor flavus at low temperature.[J]. Food Science & Technology Research, 2009, 15(4):347-352.	CBS 234.35	Walther, G., Pawlowska, J., Alastruey-Izquierdo, A., Wrzosek, M. et al. (2013). DNA barcoding in Mucorales: an inventory of biodiversity. Persoonia,2013, 30, 11-47.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor fuscus*		Dairy	Hermet, A., Méheust, D., Mounier, J., Barbier, G., Jany, J.L. (2012). Molecular systematics in the genus Mucor with special regards to species encountered in cheese. Fungal Biol., 116, 692-705.	CBS 132.22	Walther, G., Pawłowska, J., Alastruey-Izquierdo, A., Wrzosek, M., Rodriguez-Tudela, J.L., Dolatabadi, S., Chakrabarti, A., de Hoog, G.S. (2013). DNA barcoding in Mucorales: an inventory of biodiversity. Persoonia, 30, 11-47.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor hiemalis*		Plant Based	Han, B.Z., Kuijpers, A.F.A., Thanh, N.V., Nout., R.M.J. (2004). Mucoraceous moulds involved in the commercial fermentation of Sufu Pehtze. Antonie van Leeuwenhoek Volume 85, Number 3, 253-257.	CBS 201.65	Wehmer, C. (1903). Der Mucor der Hanfrötte, M. hiemalis nov. spec. Annales Mycologici 1, 37-41.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor lanceolatus*		Dairy	Hermet, A., Méheust, D., Mounier, J., Barbier, G., Jany, J.L. (2012). Molecular systematics in the genus Mucor with special regards to species encountered in cheese. Fungal Biol., 116, 692-705.	CBS 131276	Walther, G., Pawłowska, J., Alastruey-Izquierdo, A., Wrzosek, M., Rodriguez-Tudela, J.L., Dolatabadi, S., Chakrabarti, A., de Hoog, G.S. (2013). DNA barcoding in Mucorales: an inventory of biodiversity. Persoonia, 30, 11-47.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor mucedo*		Dairy	Oterholm, A. (2003). Norwegian cheeses from a historical perspective — Gamelost. Meieriposten, 9, 200–211. Oterholm, A. (2003). Norwegian cheeses from a historical perspective — Pultost. Meieriposten, 9, 264–274.	CBS 640.67	Persoon, C.H. (1801). Synopsis methodica fungorum 1-706
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor plumbeus*		Dairy	Han, B.Z., Rombouts, F.M., Nout, M.J. (2001). A Chinese fermented soybean food. Int J Food Microbiol. 65, 1-10. Hayaloglu, A.A., Kirbag, S. (2007). Microbial quality and presence of moulds in Kuflu cheese. Int J Food Microbiol. 115, 376-80.	CBS 129.41	Bonorden, H.F. (1864). Abhandlungen der Naturforschenden Gesellschaft zu Halle 8, 109.
Fungi	*Zygomycota*	*Mucoraceae*	*Mucor*	*Mucor racemosus*		Dairy	Han, B.Z., Rombouts, F.M., Nout, M.J. (2001). A Chinese fermented soybean food. Int J Food Microbiol. 65, 1-10. Hayaloglu, A.A., Kirbag, S. (2007). Microbial quality and presence of moulds in Kuflu cheese. Int J Food Microbiol. 115, 376-80.	CBS 260.68	Fresenius, G. (1850). Beiträge zur Mykologie 1, 12.
Fungi	*Zygomycota*	*Mucoraceae*	*Rhizopus*	*Rhizopus microsporus*		Plant Based	Shrestha, H., Rati, E.R. (2003). Defined microbial starter for the production of Poko - a traditional fermented food product of Nepal. Food Biotechnol 17(1) 15-25	CBS 631.82	Schipper, M.A.A., Stalpers, J.A. (1984). A revision of the genus Rhizopus. II. The Rhizopus microsporus-group. Studies in Mycology 25 20-34
Fungi	*Zygomycota*	*Mucoraceae*	*Rhizopus*	*Rhizopus oligosporus*		Plant Based	Rusmin, S., Ko, S.D. (1974). Rice-Grown Rhizopus oligosporus Inoculum for Tempeh Fermentation. Appl Microbiol. 28, 347-50.	CBS 377.62	Abe, A., Oda, Y., Asano, K , Sone, T., 2006. The molecular phylogeny of the genus Rhizopus based on rDNA sequences. Biosci Biotechnol Biochem. 70, 2387-93.

Kingdom	Phylum	Family	Genus	Species	Sub Species	Food Usage	Reference Food Usage	Type Strain	Reference Taxonomy
Fungi	*Zygomycota*	*Mucoraceae*	*Rhizopus*	*Rhizopus oryzae*		Alcoholic Beverages	Lv, X-C., Weng, X., Zhang, W., Rao, P-F., Ni, L. (2012). Microbial diversity of traditional fermentation starters for Hong Qu glutinous rice wine as determined by PCR-mediated DGGE. Food Control Volume 28, Issue 2, December, Pages 426-434	CBS 111233	Went, F.A.F.C., Prinsen Geerligs, H.C. (1895). Observation of Yeast and Moulds for Arack fermentation. Verhandelingen, Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Natuurkunde 4 3-31
Fungi	*Zygomycota*	*Mucoraceae*	*Rhizopus*	*Rhizopus oryzae*		Plant Based	Rehms, H., Barz, W. (1995). Degradation of stachyose, raffinose, melibiose and sucrose by different tempe-producing Rhizopus fungi. Appl Microbiol Biotechnol. 44(1-2):47-52. Essers, A.J., Jurgens, C.M., Nout, M.J. (1995). Contribution of selected fungi to the reduction of cyanogen levels during solid substrate fermentation of cassava. Int J Food Microbiol. 26(2):251-7.	CBS 111233	Went, F.A.F.C., Prinsen Geerligs, H.C. (1895). Observation of Yeast and Moulds for Arack fermentation. Verhandelingen, Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Natuurkunde 4 3-31
Fungi	*Zygomycota*	*Mucoraceae*	*Rhizopus*	*Rhizopus stolonifer*		Plant Based	Rehms, H., Barz, W. (1995). Degradation of stachyose, raffinose, melibiose and sucrose by different tempe-producing Rhizopus fungi. Appl Microbiol Biotechnol. 44(1-2):47-52. Essers, A.J., Jurgens, C.M., Nout, M.J. (1995). Contribution of selected fungi to the reduction of cyanogen levels during solid substrate fermentation of cassava. Int J Food Microbiol. 26(2):251-7.	CBS 403.51	Liou, G.Y., Chen, S.R., Wei, Y.H., Lee, F.L., Fu, H.M., Yuan, G.F., Stalpers, J.A. (2007). Polyphasic approach to the taxonomy of the Rhizopus stolonifer group. Myc Res III 196-203

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ANNEX 1: DEFINITIONS

The definitions used in the present Bulletin are based upon the ones defined in the 2012 publications: IDF Bulletin #455-2012 and peer review publication in the International Journal of Food Microbiology [1A, 2A].

MICROBIAL FOOD CULTURES (MFCS):

“Microbial food cultures are live bacteria, yeasts or moulds used in food production”.

MFC preparations are formulations, consisting of one or more microbial species and/or strains, including media components carried over from fermentation in addition to components which are necessary for their survival, storage, standardization, and to facilitate their application in the food production process.

FERMENTATION:

Fermentation of foods occurs in approximately one-third of the world food production. While fermented foods per se have been part of the human diet since approximately 10 000 B.C., it is only since the emergence of Food Microbiology (i.e., after Pasteur’s scientific advances) that awareness of the major impact of microbial food cultures in our diet has been available.

Around 1877, the role of a sole bacterium, *Bacterium lactis (Lactococcus lactis)*, in fermented milk was shown by Sir John Lister.

Louis Pasteur defined fermentation, from the Latin word fervere, as “La vie sans l’air” (life without air).

Fermentation plays many different roles in food processing. Major roles include:

- Preservation of food through formation of inhibitory metabolites such as organic acid (lactic acid, acetic acid, formic acid, propionic acid), ethanol and bacteriocins, often in combination with decreased water activity (by drying or use of salt).
- Improving food safety through inhibition of pathogens or removal of toxic compounds
- Improving the nutritional value and organoleptic quality of the food

MICROBIAL SPECIES:

Taxonomy and systematics constitute the basis for the regulatory frameworks for MFCs. Yet the definition of a microbial species as a taxonomic unit is still not widely adopted. In the third edition of Prokaryotes, a prokaryotic species is defined by:

- a phylogenetic component given as “the smallest diagnosable cluster of individual organisms within which there is a parental pattern of ancestry and descendants”

and

- a taxonomic component given as “a group of related organisms that is distinguished from similar groups by a constellation of significant genotypic, phenotypic, and ecological characteristics.”

A bacterial species is represented by a type strain with individual strains showing a high degree of phenotypic and/or genotypic similarity to the type strain regarded as belonging to the same species. Whilst objective measures of relatedness have been proposed (such as percentage genome hybridization or sequence similarity), there is no simple definition of the species as a taxonomical unit.

MICROBIAL STRAIN:

The strain is the most stringent classification cluster recognized. Traditionally based upon isolation of culture colonies and phenotypic observation, it is now classically based on the global sequence of the genome.

Considering the variation of genome sequences during replication, it is not yet clearly defined how strains should be differentiated, and phenotypic characteristics and epidemiological data are still considered to provide information for inclusion, or not, of different isolates to the same strain.

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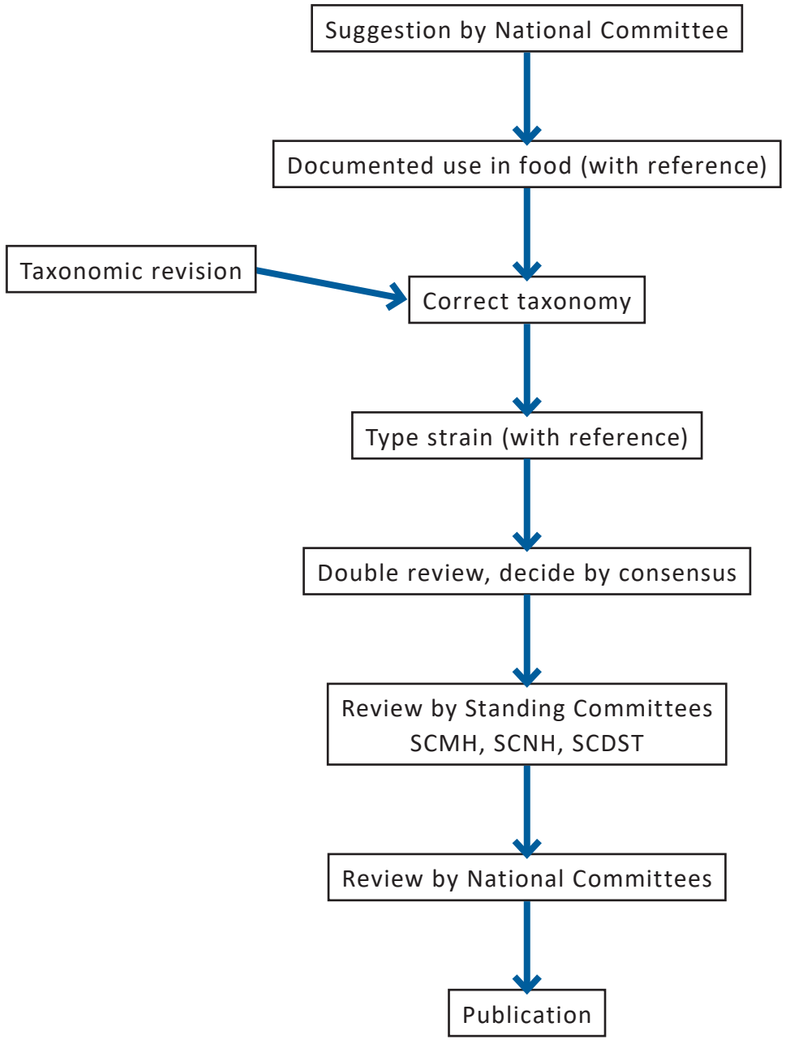
ANNEX 2: PROCESS FOR SPECIES INCLUSION



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