

Family *Pumilibacteraceae*

Etymology

[Pu.mi.li.bac.te.ra.ce.ae] N.L. fem. pl. n. *Pumilibacteraceae*, the family of the genus *Pumilibacter*

Nomenclatural type

Genus *Pumilibacter*

Description

The closest phylogenetic relatives based on 16S rRNA gene similarities are *Christensenella*, *Caldicoprobacter*, and *Saccharofermentans* spp. (<85.5%) within the order *Eubacteriales*. Phylogenomic analysis confirmed that the isolates form a monophyletic group distinct from all close relatives. The creation of a novel family was further supported by GTDB-Tk placement as 'f_CAG-552' within the order '*Christensenellales*' (not valid). Taxonomic classification of these bacteria at the order level, and the corresponding nomenclature, will require amendments in the future. Members of this new family were identified to be prevalent within the gastrointestinal tract of mice, although at sub-dominant levels (mean relative abundance <0.5%). The type genus of this family is *Pumilibacter*.

Classification

Bacteria » *Bacillota* » *Clostridia* » *Eubacteriales* » *Pumilibacteraceae*

References

Effective publication: Afrizal et al., 2022 [1]

Registry URL

<https://seqco.de/i:23519>

References

1. Afrizal et al. (2022). Enhanced cultured diversity of the mouse gut microbiota enables custom-made synthetic communities. *Cell Host & Microbe*. DOI:10.1016/j.chom.2022.09.011