Species *Laedolimicola intestinihominis*

Etymology
[in.tes.ti.ni.ho.mi'nis] **L. neut. n.** *intestinum*, the intestine; **L. masc. n.** *homo*, a human beeing; **N.L. gen. n.** *intestinihominis*, of the human gut

Nomenclatural type
Strain: CLA AA-H132 = DSM 117481 = LMG 33588

Description
The genome size is 3.45 Mbp, G+C percentage is 49.65%, with 99.37% completeness and 0.16% contamination. It includes a single plasmid of 5,131 bp. Strain CLA-AA-H132 was determined to represent a separate species to its closest relative, Laedolimicola ammoniilytica (98.38%), based on 16S rRNA gene analysis. POCP analysis confirmed that strain CLA-AA-H132 belongs to the recently named genus, Laedolimicola, with a POCP value of 75.19% to the type strain of the only current species within this genus, L. ammoniilytica. GTDDB-Tk placement as 'Merdisoma sp900553635' suggests that Laedolimicola and Merdisoma may be homonyms and require future reclassification. ANI comparison confirmed that CLA-AA-H132 represents a novel species, as the ANI value between the two was only 90.2%. Functional analysis showed the strain has 142 transporters, 21 secretion genes, and predicted utilization of cellobiose, sucrose, starch, and production of acetate, propionate, L-glutamate, cobalamin, and folate. In total, 153 CAZymes were identified, with 21 different glycoside hydrolase families and 16 glycoside transferase families represented. The strain CLA-AA-H132 (phylum Bacillota, family Lachnospiraceae) was isolated from human faeces.

Classification
Bacteria » *Bacillota* » *Clostridia* » *Lachnospirales* » *Lachnospiraceae* » *Laedolimicola* » *Laedolimicola intestinihominis*

References
Effective publication: Hitch et al., 2025 [1]

Registry URL
https://seqco.de/i:48061

References

1. Hitch et al. (2025). HiBC: a publicly available collection of bacterial strains isolated from the human gut. *Nature Communications*. DOI:10.1038/s41467-025-59229-9