Species *Ruminococcoides 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-H171 = DSM 114689 = LMG 33587

Description
The genome size is 2.26 Mbp, G+C percentage is 34.26%, with 98.66% completeness and 0.0% contamination. It contains one plasmid (1,825 bp). Based on 16S rRNA gene sequence identity, the isolate was closely related to Ruminococcus bovis (99.3%) and more distant to Ruminococcoides bili (94.8%), the type species of this genus. ANI comparison confirmed the similarity of strain CLA-AA-H171 to R. bovis (ANI = 95.4%), however classification by GTDB-Tk as ‘Ruminococcus_E sp934476515’ supported the creation of a novel species. Recently, ‘Ruminococcus_E’ has been validly named as Ruminococcoides, with the type species R. bili 38. POCP comparison between the isolate and R. bili provided a value of 51.3%, suggesting that strain CLA-AA-H171 represents a novel species within the genus Ruminococcoides. Functional analysis showed the strain has 75 transporters, 14 secretion genes, and predicted utilization of starch, and production of acetate. In total, 124 CAZymes were identified, with 13 different glycoside hydrolase families and 12 glycoside transferase families represented. Ecological analysis based on 16S rRNA gene amplicons identified this species in 10.40% of 1,000 human gut samples with a relative abundance of 0.23 ± 0.68%. The strain CLA-AA-H171 (phylum Bacillota, family Oscillospiraceae) was isolated from human faeces.

Classification
Bacteria » *Bacillota* » *Clostridia* » *Eubacteriales* » *Oscillospiraceae* » *Ruminococcoides* » *Ruminococcoides intestinihominis*

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

Registry URL
https://seqco.de/i:48066

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