

Genus *Methanobinarius*

Etymology

[Me.tha.no.bi.na'ri.us] N.L. **pref.** *methano-*, pertaining to methane; L. **masc. adj.** *binarius*, consisting of two things; N.L. **masc. n.** *Methanobinarius*, methane-producing (organism) consisting of two things, referring to the pairs of cells formed by the type species

Nomenclatural type

Species *Methanobinarius arboriphilus*^{Ts}

Description

The genus is defined by relative evolutionary divergence (RED) and phylogenomic analysis as a monophyletic group. Short oval rods that occur singly, in pairs or in short chains. Gram positive. Nonmotile. Use H₂ + CO₂ as substrates for methanogenesis, might also grow poorly on formate. Grow poorly on mineral medium with vitamins; yeast extract, casamino acids, and rumen fluid strongly stimulate growth. Optimum temperature is 30–37 °C.

Classification

Archaea » *Methanobacteriota* » *Methanobacteria* » *Methanobacteriales* » *Methanobacteriaceae* » *Methanobinarius*

References

Effective publication: Protasov et al., 2023 [1]

Registry URL

<https://seqco.de/i:32442>

References

1. Protasov et al. (2023). Diversity and taxonomic revision of methanogens and other archaea in the intestinal tract of terrestrial arthropods. *Frontiers in Microbiology*. [DOI:10.3389/fmicb.2023.1281628](https://doi.org/10.3389/fmicb.2023.1281628)