

Register list for 5 new names including *Methanoliparum* gen. nov.

Submitted by Borrel, Guillaume

Class *Methanoliparia*

Etymology

[Me.tha.no.li.pa'ri.a] N.L. neut. n. *Methanoliparum*, referring to the type genus *Methanoliparum*; *-ia*, ending to denote a class; N.L. neut. pl. n. *Methanoliparia*, the *Methanoliparum* class

Nomenclatural type

Genus *Methanoliparum*

Description

Analyses of enrichment cultures indicate that members of this class can utilize long-chain alkanes as substrate for methanogenesis.

Classification

Archaea » *Methanobacteriota* » *Methanoliparia*

References

Effective publication: Borrel et al., 2019 [1]
Assigned taxonomically: Göker, Oren, 2023 [2]

Registry URL

<https://seqco.de/i:465>

Order *Methanoliparales*

Etymology

[Me.tha.no.li.pa.ra'les] N.L. neut. n. *Methanoliparum*, referring to the type genus *Methanoliparum*; *-ales*, ending to denote an order; N.L. fem. pl. n. *Methanoliparales*, the *Methanoliparum* order

Nomenclatural type

Genus *Methanoliparum*

Description

Analyses of enrichment cultures indicate that members of this order can utilize long-chain alkanes as substrate for methanogenesis.

Classification

Archaea » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales*

References

Effective publication: Borrel et al., 2019 [1]

Registry URL

<https://seqco.de/i:32050>

Family *Methanoliparaceae*

Etymology

[Me.tha.no.li.pa.ra.ce'ae] **N.L. neut. n.** *Methanoliparum*, referring to the type genus *Methanoliparum*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Methanoliparaceae*, the *Methanoliparum* family

Nomenclatural type

Genus *Methanoliparum*

Description

Analyses of enrichment cultures indicate that members of this family can utilize long-chain alkanes as substrate for methanogenesis.

Classification

Archaea » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae*

References

Effective publication: Borrel et al., 2019 [1]

Registry URL

<https://seqco.de/i:32049>

Genus *Methanoliparum*

Etymology

[Me.tha.no.li.pa'rum] **N.L. pref. methano-**, pertaining to methane; **Gr. adj. liparos**, fat, greasy; **N.L. neut. n.** *Methanoliparum*, methane-producing/consuming organism present in oil-rich environments

Nomenclatural type

Species *Methanoliparum thermophilum*^{Ts}

Description

Analyses of enrichment cultures indicate that members of this genus can utilize long-chain alkanes as substrate for methanogenesis.

Classification

Archaea » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae* » *Methanoliparum*

References

Effective publication: Borrel et al., 2019 [1]

Registry URL

<https://seqco.de/i:32051>

Species *Methanoliparum thermophilum*^{Ts}

Etymology

[ther.mo.phi'lum] **Gr. n. thermé**, heat; **N.L. neut. adj. suff. -philum**, friend, loving (from **Gr. adj. philos** -ê -on); **N.L. neut. adj. thermophilum**, heat-loving

Nomenclatural type

[NCBI Assembly: GCA_004212075.1](https://ncbi.nlm.nih.gov/assembly/GCA_004212075.1)^{Ts}

Description

This organism is not isolated. It is represented by a near-complete MAG, NM1a, (GCA_004212075.1) obtained from an enrichment culture (50°C) using biodegraded oil as inoculum from Brazil. Analyses of enrichment cultures (Borrel et al., 2019; Laso-Perez et al., 2019; Zhou et al., 2022) indicate that this organism can utilize long-chain alkanes as substrate for methanogenesis.

Classification

Archaea » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae* » *Methanoliparum* » *Methanoliparum thermophilum*^{Ts}

References

Effective publication: Borrel et al., 2019 [1]

Registry URL

<https://seqco.de/i:32048>

References

1. Borrel et al. (2019). Wide diversity of methane and short-chain alkane metabolisms in uncultured archaea. *Nature Microbiology*. DOI:[10.1038/s41564-019-0363-3](https://doi.org/10.1038/s41564-019-0363-3)
2. Göker, Oren (2023). Valid publication of four additional phylum names. *International Journal of Systematic and Evolutionary Microbiology*. DOI:[10.1099/ijsem.0.006024](https://doi.org/10.1099/ijsem.0.006024)

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List seqco.de/r:pbj4my08 submitted by **Borrel, Guillaume** and including 5 new names has been successfully validated.

Date of Priority: 2024-05-29 01:10 UTC

DOI: 10.57973/seqcode.r:pbj4my08

