

Species *Hestiella acidicharens*^{Ts}

Etymology

[a.ci.di.char'ens] L. neut. adj. *acidum*, acid; N.L. part. adj. *charens*, delighting in, from Gr. v. chairō to rejoice or delight in; N.L. part. adj. *acidicharens*, delighting in acid

Nomenclatural type

[NCBI Assembly: GCA_035161305.1](#)^{Ts}

Description

Genomes of members of this species were recovered from an acidic hydrothermal vent at Mariner on the Valu Fa Ridge in the Lau Basin and the Upper Cone of the deep-sea Brothers volcano along the Kermadec arc. MAGs range in size from approximately 1.06 to 1.48 Mbp and are in 77 to 157 contigs, with a G + C content of 39.9 to 40.2%. Based on CheckM2 estimates, MAG completeness ranges from 76.15 to 96.42%, while contamination is 0.03 to 0.39%. ANI between members of this species is >97%, and phylogenomic analysis with 53 archaeal marker genes places this species in *Hestiella*. Based on functional gene analysis, members of this species are likely motile anaerobic nitrate and/or perchlorate reducers that degrade protein-rich carbon sources, starch and/or glycogen, growing best at approximately 82 to 83°C.

Classification

Archaea » *Thermoproteota* » *Thermoprotei* » *Acidilobales* » *Acidilobaceae* » *Hestiella* » *Hestiella acidicharens*^{Ts}

References

Effective publication: St. John, Reysenbach, 2024 [1]

Registry URL

<https://seqco.de/i:32609>

References

1. St. John, Reysenbach (2024). Genomic comparison of deep-sea hydrothermal genera related to *Aeropyrum*, *Thermodiscus* and *Caldisphaera*, and proposed emended description of the family *Acidilobaceae*. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2024.126507