

Species *Tiamatella incendiivivens*^{Ts}

Etymology

[in.cen.di.i.vi'vens] L. **neut. n.** *incendium*, fire; L. **pres. part.** *vivens*, living; N.L. **fem. adj.** *incendiivivens*, living in or near the fire, referring to the active volcanic environment of Lower Cone, Brothers volcano

Nomenclatural type

[NCBI Assembly: GCA_015522635.1](#)^{Ts}

Description

The MAG representing this species was obtained from a sample from the Lower Cone of the deep-sea Brothers volcano along the Kermadec arc. The genome consists of 27 contigs, totaling 1,454,292 bp in length, and has a GC content of 41.6%. Based on CheckM2, the MAG is approximately 95.79% complete with 1.74% contamination. It encodes a complete 16S rRNA gene and tRNA genes for 19 standard amino acids. Phylogenomic analysis places this genome within *Tiamatella*. Based on functional genomic analysis, this organism is likely a non-motile anaerobe that utilizes protein-rich carbon sources and may derive energy from reduction of sulfur, polysulfides, thiosulfate or selenite. It is predicted to be a hyperthermophile, growing best at approximately 80°C.

Classification

Archaea » *Thermoproteota* » *Thermoprotei* » *Acidilobales* » *Acidilobaceae* » *Tiamatella* » *Tiamatella incendiivivens*^{Ts}

References

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

Registry URL

<https://seqco.de/i:32611>

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