

Magnetogigantoglobus gen. nov.

Submitted by Monteil, Caroline L.

Genus *Magnetogigantoglobus*

Etymology

[Mag.ne.to.gi.gan.to.glo'bus] **Gr. masc. n.** *Magnés*, a magnet; **Gr. masc. n.** *gigas*, giant; **L. masc. n.** *globus*, a sphere; **N.L. masc. n.** *Magnetogigantoglobus*, giant magnetic sphere

Nomenclatural type

Species *Magnetogigantoglobus mediterraneus*^{Ts}

Description

Magnetogigantoglobus mediterraneus represents a novel genus of uncultivated multicellular magnetotactic prokaryotes (MMP) observed in marine sediments of the Mediterranean sea. This pluricellular prokaryotes represent a complex cellular architecture comprising 130 on average, each measuring $5.99 \mu\text{m} \pm 0.95$ in length and each connected to the acellular central compartment $4.21 \pm 1.35 \mu\text{m}$ wide. Organisms are spherical, $16.2 \mu\text{m} \pm 0.99$ in diameter representing an average volume of $2221.22 \mu\text{m}^3$ which is more voluminous than that of smaller MMP previously characterized. This feature makes *Magnetogigantoglobus mediterraneus* the biggest magnetotactic bacteria described to date, hence its designation as a “giant”.

Classification

Bacteria » *Desulfobacterota* » *Desulfobacteria* » *Desulfobacterales* » “Magnetomoraceae” » *Magnetogigantoglobus*

References

Effective publication: Turrini et al., 2026 [1]

Registry URL

<https://seqco.de/i:51038>

Species *Magnetogigantoglobus mediterraneus*^{Ts}

Etymology

[me.di.ter.ra'ne.us] **L. masc. adj.** *mediterraneus*, belonging to the Mediterranean Sea

Nomenclatural type

[NCBI Assembly: GCA_965250335.1](#)^{Ts}

Description

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References

Effective publication: Turrini et al., 2026 [1]

Registry URL

<https://seqco.de/i:51035>

References

1. Turrini et al. (2026). Giant multicellular magnetotactic prokaryotes in marine sediments. *The ISME Journal*. [DOI:10.1093/ismejo/wrag017](https://doi.org/10.1093/ismejo/wrag017)

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:pzldl4q4** submitted by **Monteil, Caroline L.** and including 2 new names has been successfully validated.

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