Magnetogigantoglobus gen. nov.

Submitted by MONTEIL, Caroline L.

Genus *Magnetogigantoglobus*

Etymology
[Mag.ne.to.gi.gan.to.glo'bus] **Gr. masc. n.** *Magnês*, 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 µm ± 0.95 in length and each connected to the acellular central compartment 4.21 ± 1.35 µm wide. Organisms are spherical, 16.2 µm ± 0.99 in diameter representing an average volume of 2221.22 µm³ 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
Magnetogigantoglobus mediterraneus represents a species 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 µm ± 0.95 in length and each connected to the acellular central compartment 4.21 ± 1.35 µm wide. Organisms are spherical, 16.2 µm ± 0.99 in diameter representing an average volume of 2221.22 µm³ 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* » *Magnetogigantoglobus mediterraneus*[Ts]

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

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.

Date of Priority: 2026-02-14 06:02 UTC
DOI: 10.57973/seqcode.r:pzldl4q4