Liberimonas magnetica gen. nov. sp. nov.

Submitted by Grouzdev, Denis

Genus *Liberimonas*

Etymology
[Li.be.ri.mo'nas] **L. masc. adj.** *liberus*, free; **L. fem. n.** *monas*, unit, monad; **N.L. fem. n.** *Liberimonas*, a free monad

Nomenclatural type
Species *Liberimonas magnetica*[Ts]

Description
Potentially has a fermentation-based metabolism. Has the capacity to produce lactate and acetate as fermentation products. Has the potential for autotrophic growth with hydrogen and carbon dioxide via the Wood-Ljungdahl pathway. Predicted unable to assimilate nitrite or nitrate and unable to fix nitrogen. Sulfur is likely assimilated through sulfate reduction. Supposedly capable of twitching motility.

Classification
Bacteria » *Elusimicrobiota* » *Endomicrobiia* » *Endomicrobiales* » “Liberimonadaceae” » *Liberimonas*

References
Effective publication: Uzun et al., 2023 [1]

Registry URL
https://seqco.de/i:45213

Species *Liberimonas magnetica*[Ts]

Etymology
[mag.ne'ti.ca] **L. fem. adj.** *magnetica*, magnetic

Nomenclatural type
NCBI Assembly: GCA_020523885.1 [Ts]

Description
Potentially has a fermentation-based metabolism. Has the capacity to produce lactate and acetate as fermentation products. Has the potential for autotrophic growth with hydrogen and carbon dioxide via the Wood-Ljungdahl pathway. Predicted unable to assimilate nitrite or nitrate and unable to fix nitrogen. Sulfur is likely assimilated through sulfate reduction. Supposedly capable of twitching motility. Was collected on magnetic column from waterlogged soil of the Durykino ravine. The reference strain is DUR002. The genome reference sequence of DUR002 is JAJAPY000000000. G+C content 39.76%.

Classification
Bacteria » *Elusimicrobiota* » *Endomicrobiia* » *Endomicrobiales* » “Liberimonadaceae” » *Liberimonas* » *Liberimonas magnetica*[Ts]

References
Effective publication: Uzun et al., 2023 [1]
Assigned taxonomically: Uzun et al., 2023 [1]

Registry URL
https://seqco.de/i:45212

References

1. Uzun et al. (2023). Recovery and genome reconstruction of novel magnetotactic *Elusimicrobiota* from bog soil. *The ISME Journal*. DOI:10.1038/s41396-022-01339-z

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:omoyirye** submitted by **Grouzdev, Denis** and including 2 new names has been successfully validated.

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