Chloroploca mongolica sp. nov.

Submitted by Grouzdev, Denis

Species *Chloroploca mongolica*

Etymology

[mon.go'li.ca.] **N.L. fem. adj.** *mongolica*, Mongolian

Nomenclatural type

NCBI Assembly: GCA_004762035.2 [Ts]

Description

A mesophilic filamentous anoxygenic phototrophic bacterium, designated M50-1, was isolated from a microbial mat of the Chukhyn Nur soda lake (northeastern Mongolia) with salinity of 5–14 g/L and pH 8.0–9.3. The organism is a strictly anaerobic phototrophic bacterium, which required sulfide for phototrophic growth. The cells formed short undulate trichomes surrounded by a thin sheath and containing gas vesicles. Motility of the trichomes was not observed. The cells contained chlorosomes. The antenna pigments were bacteriochlorophyll *d* and β- and γ-carotenes. Analysis of the genome assembled from the metagenome of the enrichment culture revealed all the enzymes of the 3-hydroxypropionate bi-cycle for autotrophic CO2 assimilation. The genome also contained the genes encoding a type IV sulfide:quinone oxidoreductase (*sqrX*). The organism had no *nifHDBK* genes, encoding the proteins of the nitrogenase complex responsible for dinitrogen fixation.

Classification

Bacteria » *Chloroflexota* » *Chloroflexia* » *Chloroflexales* » *Chloroflexaceae* » *Chloroploca* » *Chloroploca mongolica*

References

Effective publication: Bryantseva et al., 2021 [1]
Assigned taxonomically: Gorlenko et al., 2014 [2]

Registry URL

https://seqco.de/i:729

References

1. Bryantseva et al. (2021). 'Candidatus Chloroploca mongolica' sp. nov. a new mesophilic filamentous anoxygenic phototrophic bacterium. *FEMS Microbiology Letters*. DOI:10.1093/femsle/fnab107
2. Gorlenko et al. (2014). Candidatus 'Chloroploca asiatica' gen. nov., sp. nov., a new mesophilic filamentous anoxygenic phototrophic bacterium. *Microbiology*. DOI:10.1134/s0026261714060083

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:59hjv8kc** submitted by **Grouzdev, Denis** and including 1 new name has been successfully validated.

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