

## Species *Chloroploca mongolica*

### Etymology

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

### Nomenclatural type

[NCBI Assembly: GCA\\_004762035.2](#)<sup>Ts</sup>

### 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  $\beta$ - and  $\gamma$ -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 CO<sub>2</sub> 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). '*CandidatusChloroploca mongolica*' sp. nov. a new mesophilic filamentous anoxygenic phototrophic bacterium. *FEMS Microbiology Letters*.  
[DOI:10.1093/femsle/fnab107](https://doi.org/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](https://doi.org/10.1134/s0026261714060083)