

Chloroploca asiatica gen. nov. sp. nov.

Submitted by Grouzdev, Denis

Genus *Chloroploca*

Etymology

[Ch.lo.ro.plo'ca] **Gr. masc. adj.** *chlôros*, green; **Gr. fem. n.** *plokê*, a braid, a twist; **N.L. fem. n.** *Chloroploca*, green braid

Nomenclatural type

Species *Chloroploca asiatica*^{Ts}

Description

The cells in the trichomes divide by diaphragmal ingrowth of the septa. In different isolates, the trichomes may be straight, wavy, or helical. Trichomes multiply by the separation of short segments or single cells from the parental trichome. The trichomes form bunches of several filaments. In the trichomes, cell length exceeds cell width three to fivefold. The distance between the sheath and the cell wall is 0.1–0.2 µm or more. The sheath has a loose fibrous structure. Finely dispersed iron sulfide may accumulate in the sheaths. Two trichomes may occupy the same sheath in rare cases. No motility of the trichomes was detected. Gram staining is variable. The cell wall structure is not typical of gram-negative bacteria. The typical gram-negative outer membrane is not revealed. The cell envelope consists of several layers.

Classification

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

References

Effective publication: Gorlenko et al., 2014 [1]

Registry URL

<https://seqco.de/i:32084>

Species *Chloroploca asiatica*^{Ts}

Etymology

[a.si.a'ti.ca] **L. fem. adj.** *asiatica*, Asian

Nomenclatural type

[NCBI Assembly: GCF_002532075.1](#)^{Ts}

Description

The cells are elongated (0.5–0.7 × 1.0–3.0 µm), forming short filaments (trichomes) 15–30 µm long, covered with a thin mucous sheath. The cells in the trichomes divide by diaphragmal ingrowth of the septa. In different isolates, the trichomes may be straight, wavy, or helical. Trichomes multiply by the separation of short segments or single cells from the parental trichome. The trichomes form bunches of several filaments. In the trichomes, cell length exceeds cell width three to fivefold. The distance between the sheath and the cell wall is 0.1–0.2 µm or more. The sheath has a loose fibrous structure. Finely dispersed iron sulfide may accumulate in the sheaths. Two trichomes may occupy the same sheath in rare cases. No motility of the trichomes was detected. The cells contain gas vacuoles located close to the cell septa. Poly-β-hydroxybutyrate and small polyphosphate granules may be present as storage compounds. Gram staining is variable. The cell wall structure is not typical of gram-negative bacteria. The typical gram-negative outer membrane is not revealed. The cell envelope consists of several layers. Antennal photosynthetic structures (chlorosomes) are located below the cytoplasmic membrane. Bacteriochlorophyll c is the major pigment. Bacteriochlorophyll a is present in minor amounts. The main carotenoid is ycarotene (at least 90%). Absorption maxima of the pigments in the cells are at 462, (515—shoulder), 742, 805, and 863 nm

Classification

Bacteria » *Chloroflexota* » *Chloroflexia* » *Chloroflexales* » *Chloroflexaceae* » *Chloroploca* » *Chloroploca asiatica*^{Ts}

References

Effective publication: Gorlenko et al., 2014 [1]

Assigned taxonomically: Gorlenko et al., 2014 [1]

Registry URL

<https://seqco.de/i:312>

References

1. 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)

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:pyrr8ws9** submitted by **Grouzdev, Denis** and including 2 new names has been successfully validated.

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