Species *Gorgyraea atricola*[Ts]

Etymology

[a.tri'co.la] **L. masc. adj.** *ater*, black, dark; **L. n. suff.** *-cola*, inhabitant; **N.L. fem. n.** *atricola*, inhabitant of the dark

Nomenclatural type

NCBI Assembly: GCA_030765235.1 [Ts]

Description

This species is the nomenclatural type for the genus Gorgyraea. The description for this species is derived from Williams et al., 2021, and supplemented with additional information. The assembly representing this species has a genome of 1.74 Mb, with a %GC content of 41.71 %. This species encode for the Wood-Ljungdahl pathway, but the absence of genes for the reverse TCA cycle may indicate no capacity for autotrophic CO2 fixation and rather that the Wood-Ljungdahl pathway in combination with the Rnf complex, functions in the reductive direction as an electron sink during homoacetogenic glucose fermentation. Several proteases and peptidases are encoded for the degradation of proteins to amino acids, some with signal peptides, while simple sugar transporters and glycoside hydrolases are also encoded by the genome. The ability to synthesize trehalose and glycogen is also feasible. A V-type ATPase and Rnf complex for ATP synthesis is present and a membrane-bound Group 4g [NiFe] hydrogenase is also encoded. Components for a Type-4a pilus and a very large ORF is encoded by the genome. The nomenclatural type for this species is the genome designated 3300035698_32.

Classification

“Gorgyraeales” » “Gorgyraeaceae” » *Gorgyraea* » *Gorgyraea atricola*[Ts]

References

Effective publication: Williams et al., 2021 [1]

Registry URL

https://seqco.de/i:33280

References

1. Williams et al. (2021). Shedding Light on Microbial “Dark Matter”: Insights Into Novel Cloacimonadota and Omnitrophota From an Antarctic Lake. *Frontiers in Microbiology*. DOI:10.3389/fmicb.2021.741077