

Species *Candidatus Haloectosymbiotes riaformosensis*

Etymology

riaformosensis

Nomenclatural type

Unknown

Description

Filker, et al (2014): Rod-shaped archaeon with a length-width ratio of 3:1. Epibiont on the scuticociliate *Platynematum salinarum* (*Ciliophora, Scuticociliatia*). Phylogenetically related to *Hlm. pelagica* on the basis of the 16S rRNA gene sequence (accession number: KF736828), and identifiable with the specific FISH oligonucleotide probes Hesr1-2 (Hesr1: 5'-TTCCTAGGTTCCTCTCG-3'; Hesr2: 5'-GACTCTCGGAGTGGTGTAT-3') and the archaeal-specific probe Arch915 (5'-GTGCTCCCCGCCAATTCCT-3'). Identified as an inhabitant on the surface of a *P. salinarum* population, isolated from the Ria Formosa solar saltern in Faro, Portugal. Anisomycin experiments point to an obligate symbiotic relation with its host, whereas no free-living forms have been observed. Uncultured so far.

Filker (2021): *Ca. Haloectosymbiotes riaformosensis* was observed to live as ectosymbiont on a halophile scuticociliate, which was isolated from a thalassohaline solar saltern pond (12% salinity) in Faro, Portugal. Comparisons of 16S rRNA gene sequences showed that *Ca. Haloectosymbiotes* is phylogenetically affiliated to the genera *Halolamina* (sequence similarity to *H. pelagica*: 87%) and *Halobaculum* (sequence similarity to *H. magnesiophilum* 85%). Based on scanning electron microscopy micrographs and fluorescence *in situ* hybridization, cells are rod-shaped and approximately 1.8 × 0.6 µm in size. Cells are densely covering the surface of the host, with approximately 0.52 epibiotic cells per µm². Free-living forms were not observed. *Candidatus Haloectosymbiotes riaformosensis* is sensitive to anisomycin. Known habitats are aquatic hypersaline environments.

Classification

Archaea » Methanobacteriota » Halobacteria » Halobacteriales » Halobacteriaceae » *Candidatus Haloectosymbiotes riaformosensis*

References

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

Corrigendum: Filker, 2021 [2] (from “*Candidatus Haloectosymbiotes riaformosensis*”)

Emendavit: Filker, 2021 [2]

Registry URL

<https://seqco.de/i:76>

References

1. Filker et al. (2014). “*Candidatus Haloectosymbiotes riaformosensis*” (Halobacteriaceae), an archaeal ectosymbiont of the hypersaline ciliate *Platynematum salinarum*. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2014.01.001
2. Filker (2021). *Candidatus Haloectosymbiotes*. *Bergey's Manual of Systematics of Archaea and Bacteria*. DOI:10.1002/9781118960608.gbm02011