

# Velaminicoccus archaeovorur gen. nov. sp. nov.

Submitted by Palmer, Marike

## Genus *Velaminicoccus*

### Etymology

[Ve.la.mi.ni.coc'cus] L. neut. n. *velamen*, covering; Gr. masc. n. *kokkos*, grain, seed, berry, coccus; N.L. masc. n. *Velaminicoccus*, a coccus with a covering

### Nomenclatural type

Species *Velaminicoccus archaeovorur*<sup>Ts</sup>

### Description

Members of the genus “*Ca. Velaminicoccus*” are obligately anaerobic, chemoheterotrophic bacteria. The only representative so far is the species “*Ca. Velaminicoccus archaeovorur*,” a predatory bacterium. The genus “*Ca. Velaminicoccus*” belongs to a lineage within the candidate division OP3 or phylum “*Candidatus Omnitrophica*.”

### Classification

*Bacteria* » *Omnitrophota* » “*Velaminicoccia*” » “*Velaminicoccales*” » “*Velaminicoccaceae*” » *Velaminicoccus*

### References

Effective publication: Kizina et al., 2022 [1]

### Registry URL

<https://seqco.de/i:23772>

## Species *Velaminicoccus archaeovorur*<sup>Ts</sup>

### Etymology

[ar.chae.o.vo'rus] Gr. masc. adj. *archaios*, ancient; L. v. *voro*, to eat, to devour; N.L. masc. adj. *archaeovorur*, archaea (ancient microorganisms) devouring

### Nomenclatural type

[INSDC Nucleotide: CP019384.1](#)<sup>Ts</sup>

### Description

The species is represented by the phylotype and strain LiM and its genome (GenBank number [CP019384](#)). The genome of 1.97 Mb has a GC content of 52.9%. OP3 LiM was highly enriched in a limonene-degrading methanogenic enrichment culture. Cells are coccoid. They are ultramicrobacteria 0.2 µm in diameter and occur free living and attached to other microorganisms. The bacterium is maintained in slowly growing *Methanosaeta*-rich methanogenic enrichment cultures in freshwater medium with low concentrations of limonene as the carbon source at 28°C. It can be visualized by the FISH probe OP3-565.

### Classification

*Bacteria* » *Omnitrophota* » “*Velaminicoccia*” » “*Velaminicoccales*” » “*Velaminicoccaceae*” » *Velaminicoccus* » *Velaminicoccus archaeovorur*<sup>Ts</sup>

### References

Effective publication: Kizina et al., 2022 [1]

### Registry URL

<https://seqco.de/i:23450>

## References

1. Kizina et al. (2022). *Methanosaeta* and “*Candidatus Velamenicoccus archaeovorus*”. *Applied and Environmental Microbiology*. DOI:[10.1128/aem.02407-21](https://doi.org/10.1128/aem.02407-21)

### 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:pgdylp80](https://seqco.de/r:pgdylp80) submitted by **Palmer, Marike** and including 2 new names has been successfully validated.

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