

Uabimicrobium amorphum gen. nov. sp. nov.

Submitted by Nguyen, Huong

Genus *Uabimicrobium*

Etymology

[U.a.bi.mi.cro'bi.um] **N.L. masc. n.** *Uabius*, derived from Uab; **N.L. neut. n.** *microbium*, a microbe; **N.L. neut. n.** *Uabimicrobium*, a microbe named after Uab, a hungry giant in Palauan mythology

Nomenclatural type

Species *Uabimicrobium amorphum*^{Ts}

Classification

Bacteria » *Planctomycetota* » *Uabimicrobiia* » *Uabimicrobiales* » *Uabimicrobiaceae* » *Uabimicrobium*

References

Effective publication: Shiratori et al., 2019 [1]

Corrigendum: Oren, Garrity, 2021 [2] (from “Uab”)

Registry URL

<https://seqco.de/i:768>

Species *Uabimicrobium amorphum*^{Ts}

Etymology

[a.mor'phum] **N.L. neut. adj.** *amorphum*, without shape

Nomenclatural type

[NCBI Assembly: GCF_009002475.1](#)^{Ts}

Reference Strain

[Strain sc|0041736: JCM 39082](#)

Description

[Shiratori et al. \(2019\)](#): Marine free-living aerobic Gram-negative bacterium was collected from surface seawater in the Republic of Palau (7.181386° N, 134.336947° E). Cells are flattened and round or oval shape with granular cytoplasm. Flagellum is absent. Cells were 3.2–7.8 µm (4.5 ± 0.85 µm) in the long axis and 2.8–5.5 µm (4.0 ± 0.57 µm) in the short axis ($n = 79$). When prey bacteria were abundant in the culture, cells occasionally reached 10 µm in diameter. Cells attach to substrate and show gliding motility with changing shape. Cells reproduce by binary fission. Periplasm (or paryphoplasm) highly invaginates into the cytoplasm (or pirellulosome) and shows a reticulate pattern. The cytoplasm includes multiple nuclear bodies. The cell interior includes four types of fibrous structures: large striated fibres, small striated fibres, short bundle fibres and cylindrical structures that contain linear fibres. Cells can engulf bacteria and picoeukaryotes (*Bathycoccus prasinos*). Engulfed bacteria and algae can be found in phagosome-like vacuoles (PVs). Some PVs connect to other phagosome-like structures or outside of the cell by narrow ducts. Similarity of the 16S rRNA gene sequence (LC496071) to that of the closest species (the planctomycete '*Candidatus Kuenenia stuttgartiensis*') is 79% . The genome of '*Ca. Uab amorphum*' (AP019860) is circular and 9,503,110 bp in size. The G + C content of the genome is 39.4 mol%. A co-culture of '*Ca. Uab amorphum*' has been deposited at the JCM as JCM 39082.

Classification

Bacteria » *Planctomycetota* » *Uabimicrobiia* » *Uabimicrobiales* » *Uabimicrobiaceae* » *Uabimicrobium* » *Uabimicrobium amorphum*^{Ts}

References

Effective publication: Shiratori et al., 2019 [1]
Corrigendum: Oren, Garrity, 2021 [2] (from "Uab amorphum")

Registry URL

<https://seqco.de/i:43481>

References

1. Shiratori et al. (2019). Phagocytosis-like cell engulfment by a planctomycete bacterium. *Nature Communications*. DOI:10.1038/s41467-019-13499-2
2. Oren, Garrity (2021). Candidatus List No. 2. Lists of names of prokaryotic Candidatus taxa. *International Journal of Systematic and Evolutionary Microbiology*. DOI:10.1099/ijsem.0.004671

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:n0_hspo1** submitted by **Nguyen, Huong** and including 2 new names has been successfully validated.

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