

Shikimatogenerans silvanidophilus sp. nov. gen. nov.

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Genus *Shikimatogenerans*

Etymology

[Shi.ki.ma.to.ge.ne'rans] N.L. masc. n. *shikimas*, shikimate; L. pres. part. *generans*, producing; N.L. masc. n. *Shikimatogenerans*, shikimate producing bacteria

Nomenclatural type

Species *Shikimatogenerans silvanidophilus*^{Ts}

Description

The genus name "Shikimatogenerans" is coined from the Latin roots "shikimato," denoting the shikimate pathway, and "generans," emphasizing its generative or producing capabilities. This nomenclature is proposed in recognition of the organism's distinct proficiency in executing the shikimate pathway, as elucidated by our investigations into the endosymbiont associated with *Oryzaephilus surinamensis*.

The choice of the genus name is centered on the organism's remarkable metabolic feature—the shikimate pathway—a vital biochemical route integral to the synthesis of essential aromatic compounds.

"Shikimatogenerans" encapsulates the organism's notable capacity to engage in this crucial metabolic process.

By adopting this genus name, we aim to highlight and categorize bacteria sharing this metabolic trait, contributing to a more refined taxonomic understanding. The term "Shikimatogenerans" serves as a beacon, guiding future taxonomic considerations for related Bacteroidetes bacteria associated with various beetle families, as suggested by prior studies.

In essence, "Shikimatogenerans" stands as a testament to the organism's distinctive metabolic prowess, facilitating the systematic classification of bacteria with shared biochemical characteristics.

Classification

Bacteria » *Bacteroidota* » *Flavobacteriia* » *Flavobacteriales* » *Flavobacteriaceae* » *Shikimatogenerans*

References

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

Assigned taxonomically: Kiefer et al., 2021 [1]

Registry URL

<https://seqco.de/i:32946>

Species *Shikimatogenerans silvanidophilus*^{Ts}

Etymology

[sil.va.ni.do.phi'lus] N.L. n. *Silvanidae*, family of beetles from forested environments.; N.L. masc. suff. *-philus*, affinity or association with; N.L. masc. adj. *silvanidophilus*, association with or love of *Silvanidae* beetles.

Nomenclatural type

[NCBI Assembly: GCA_018200315.1](#)^{Ts}

Description

We propose the name 'Shikimatogenerans silvanidophilus OSUR' for this endosymbiont of *Oryzaephilus surinamensis*, henceforth called *S. silvanidophilus*. The genus name *Shikimatogenerans* refers to its ability to perform the shikimate pathway. Previous studies have shown that there might be other closely related Bacteroidetes bacteria associated with other beetle families. Thus, we propose *silvanidophilus* as species name to indicate that this symbiont is associated with beetles of the family Silvanidae. As the same studies also revealed that *O. mercator* has a similar symbiont we also propose to add OSUR to identify the strain associated with *O. surinamensis*.

Classification

Bacteria » *Bacteroidota* » *Flavobacteriia* » *Flavobacteriales* » *Flavobacteriaceae* » *Shikimatogenerans* » *Shikimatogenerans silvanidophilus*^{TS}

References

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

Registry URL

<https://seqco.de/i:32943>

References

1. Kiefer et al. (2021). Inhibition of a nutritional endosymbiont by glyphosate abolishes mutualistic benefit on cuticle synthesis in *Oryzaephilus surinamensis*. *Communications Biology*. DOI:10.1038/s42003-021-02057-6

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:sx3ipbe3 submitted by Kiefer, Julian and including 2 new names has been successfully validated.

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