

## Species *Sulfuricystis thermophila*

### Etymology

[ther.mo'phi.la] **Gr. masc. adj.** *thermos*, hot; **Gr. masc. adj.** *philos*, loving; **N.L. fem. adj.** *thermophila*, heat-loving

### Nomenclatural type

[NCBI Assembly: GCF\\_004323595.1](#)<sup>Ts</sup>

### Reference Strain

[Strain sc|0040545](#): M52 = [BCRC 81387](#) = [NBRC 114016](#)

### Description

[Kojima et al., 2022 \(modified\)](#): In addition to properties listed in the genus description, cells are rod-shaped, 1.8–3.2 µm long and 0.4–0.5 µm wide. Uses oxygen and nitrate as electron acceptor. Under nitrate-reducing conditions, grows chemolithoautotrophically on thiosulfate, tetrathionate and elemental sulfur, but not on sulfide or hydrogen gas. Grows heterotrophically on pyruvate, lactate, acetate, propionate, succinate, fumarate, malate, and butyrate and isobutyrate. Does not grow on benzoate, methanol, ethanol, formate, citrate, glucose, xylose, phenol, *o*-cresol, and *m*-cresol. Temperature range for growth is 18–55 °C, with an optimum of 50 °C. Growth occurs at pH 5.5–8.6, with an optimum of pH 6.6–6.9. G + C content of genomic DNA of the reference strain is 63.6 mol%.

The reference strain M52(T) (= BCRC 81387(T) = NBRC 114016(T)) was isolated from a microbial mat of a hot spring in Japan. The GenBank/EMBL/DDBJ accession number for the complete genome of the reference strain is AP019373.

### Classification

*Bacteria* » *Pseudomonadota* » *Betaproteobacteria* » *Nitrosomonadales* » *Sterolibacteriaceae* » *Sulfuricystis* » *Sulfuricystis thermophila*

### References

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

### Registry URL

<https://seqco.de/i:39151>

## References

1. Kojima et al. (2022). *Sulfuricystis multivorans* gen. nov., sp. nov. and *Sulfuricystis thermophila* sp. nov., facultatively autotrophic sulfur-oxidizing bacteria isolated from a hot spring, and emended description of the genus *Rugosibacter*. *Archives of Microbiology*. DOI:10.1007/s00203-022-03186-0