

Actinobacteria: *Arthrobacter sp.***Source**

- ATCC
- Catalogue #: 21022

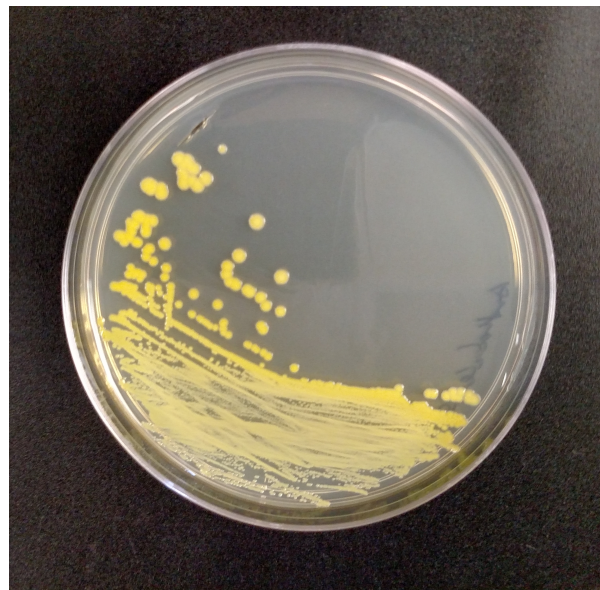
Growth Parameters

Note: The condition(s) tested below is not necessarily optimal for growth of this host. Rather, it represents a “basic” growth medium on which this host can grow.

- Growth media: PYCa media,
[225mM CaCl₂ supplemented to top agar]
- Temperature tested: 30°C
- Streak Plate Time: 1 days
- Liquid Culture Time: 1 days
- Lawn Growth Time: 1 day
- Colony Color: Yellow
- Colony Morphology: Round, convex, smooth, shiny

Additional Notes:

- Start fresh cultures every 7 – 14 days.

Streak Plate Image

Background

Arthrobacter sp. is a BSL 1, gram-positive soil organism whose relatives are known to break down various hydrocarbons, such as hexavalent chromium, 4-chlorophenol, and various aromatic compounds such as pyridine and its derivatives, suggesting a potential for use in bioremediation. Another species, *Arthrobacter arilaitensis*, found to grow on various cheeses and used in the production process, has been studied based on its adaption to this environment along with other microorganisms. The specific *Arthrobacter* strain used here, alongside its relatives, has been found to produce penicillin derivatives and aspartic decarboxylase.

Host Information

- BSL1
- Pleomorphic: variable size and shape depending on environment
- Found in soil and sludge

References

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- Westerberg, K., et al., *Arthrobacter chlorophenolicus sp. nov., a new species capable of degrading high concentrations of 4-chlorophenol*. Int J Syst Evol Microbiol, 2000. **50 Pt 6**: p. 2083-92.
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