

CULTURE PROFILE

Clostridium acetireducens

First described 1996 · Biosafety risk group 1 · NCBI TaxID 76489 · 34 evidence sentences · 10 sources

cellular organisms; Bacteria; Bacillati; Bacillota; Clostridia; Eubacteriales; Clostridiaceae; Clostridium

UNREVIEWED — not verified by a microbiologist

At a glance

1	Media used	Thioglycollate broth	low
2	Optimum temperature for growth	5–50 °C	moderate
3	Time required to grow	5-7 d	low
4	Colony morphology	No evidence retrieved	none
5	Gram character	Gram-positive (rod)	moderate
6	Biochemical tests for identification	16S rRNA gene sequencing; MALDI-TOF MS; Motility — reported positive; Beta-glucuronidase (MUG); +1 more	low

1 Media used

low confidence

- Thioglycollate broth
Low · score 0.65 · 1 source

2 Optimum temperature for growth

moderate confidence

5–50 °C

Moderate · score 8.68 · 3 sources

18–20 °C

Moderate · score 6.46 · 3 sources

Sources disagree: "5–50 °C" (score 8.68) versus "18–20 °C" (score 6.46). Both are shown; a reviewer should decide.

3 Time required to grow

low confidence

5-7 d

Low · score 3.33 · 1 source

5-20 d

Low · score 2.48 · 1 source

30 d

Low · score 1.35 · 1 source

90 d

Low · score 1.22 · 1 source

Sources disagree: "5-7 d" (score 3.33) versus "5-20 d" (score 2.48). Both are shown; a reviewer should decide.

4 Colony morphology

no evidence

No sentence in the retrieved literature supported this field. Nothing is asserted here.

5 Gram character

moderate confidence

Gram-positive (rod)

Moderate · score 7.58 · 3 sources

6 Biochemical tests for identification

low confidence

- 16S rRNA gene sequencing
Low · score 3.5 · 2 sources
- MALDI-TOF MS
Low · score 2.57 · 2 sources
- Motility — reported positive
Low · score 2.35 · 3 sources
- Beta-glucuronidase (MUG)
Low · score 0.81 · 1 source
- Spore formation / stain — reported positive
Low · score 0.73 · 1 source

7 References

1. Clostridium acetireducens 2026
wikipedia:55868277 · via Wikipedia · supported: Gram character, Biochemical tests for identification
2. Aerotolerant Thiosulfate-Reducing Bacterium Fusibacter sp. Strain WBS Isolated from Littoral Bottom Sediments of the White Sea-Biochemical and Genome Analysis 2023
PMC10386464 · via PubMed Central (open access) · supported: Time required to grow, Biochemical tests for identification, Optimum temperature for growth, Gram character
3. Aerotolerant Thiosulfate-Reducing Bacterium *Fusibacter* sp. Strain WBS Isolated from Littoral Bottom Sediment: the White Sea-Biochemical and Genome Analysis. 2023
MED:37512815 doi:10.3390/microorganisms11071642 · via Europe PMC · supported: Optimum temperature for growth
4. Biological conversion of CO₂ into the platform chemicals lactate and 3-hydroxypropionate using recombinant strains of Acetobacterium woodii 2019
https://openalex.org/W3016092867 · via OpenAlex · supported: Biochemical tests for identification
5. Taxonogenomic description of four new Clostridium species isolated from human gut: 'Clostridium amazonitimonense', 'Clostridium merdae', 'Clostridium massilielmoense' and 'Clostridium nigeriense' 2018
PMC5767839 · via PubMed Central (open access) · supported: Time required to grow, Biochemical tests for identification
6. Taxonogenomic description of four new *Clostridium* species isolated from human gut: *Clostridium amazonitimonense*, *Clostridium merdae*, *Clostridium massilielmoense* and *Clostridium nigeriense*. 2018
MED:29348922 doi:10.1016/j.nmni.2017.11.003 · via Europe PMC · supported: Biochemical tests for identification
7. Novel Clostridium populations involved in the anaerobic degradation of Microcystis blooms. 2011
MED:21107445 doi:10.1038/ismej.2010.176 · via Europe PMC · supported: Time required to grow
8. Reclassification of Clostridium hydroxybenzoicum as Sedimentibacter hydroxybenzoicus gen. nov., comb. nov., and description of Sedimentibacter saalensis sp. nov.. 2002
https://openalex.org/W2158004893 · via OpenAlex · supported: Gram character, Biochemical tests for identification
9. Caloramator coolhaasii sp. nov., a glutamate-degrading, moderately thermophilic anaerobe. 2000
https://openalex.org/W2122014918 · via OpenAlex · supported: Gram character, Time required to grow
10. Chemically Defined Medium for the Growth of Clostridium perfringens 1971
doi:10.1128/am.22.4.738-739.1971 · via Crossref · supported: Media used

How these values were derived

Each candidate value was scored as the sum, over every supporting sentence, of the source tier weight multiplied by how squarely the sentence asserts the value and by a recency factor. Culture collections and nomenclatural authorities carry weight 5.0, peer-reviewed literature 3.0, preprints 1.5, and encyclopedic sources 1.0. Confidence is reported as high only where a curated source and at least two independent sources agree. Where a runner-up scored above 60 per cent of the leader, both are shown and the field is flagged as a conflict rather than resolved automatically.

This report aggregates published evidence; it does not replace Bergey's Manual, the Manual of Clinical Microbiology, or the product sheet supplied with the strain. Every field is unreviewed until a microbiologist signs it off.