

CULTURE PROFILE

Clostridium fimetarium

First described 1997 · Biosafety risk group 1 · NCBI TaxID 99656 · 52 evidence sentences · 18 sources

cellular organisms; Bacteria; Bacillati; Bacillota; Clostridia; Lachnospirales; Lachnospiraceae; Lachnoclostridium

UNREVIEWED — not verified by a microbiologist

At a glance

1	Media used	Thioglycollate broth; Blood agar	low
2	Optimum temperature for growth	35–37 °C	moderate
3	Time required to grow	2 h	low
4	Colony morphology	The PelA recombinant colonies were cultured and induced for expression for approximately 96 h in <i>Pichia pastoris</i> , as described by Mattanovich et al. [30].	low
5	Gram character	Gram-negative (rod, curved rod)	moderate
6	Biochemical tests for identification	16S rRNA gene sequencing; Catalase — reported negative; Hydrogen sulfide (H ₂ S) — reported positive; Short-chain fatty acid profile (GLC); +2 more	moderate

1 Media used

low confidence

- Thioglycollate broth
Low · score 1.94 · 1 source
- Blood agar
Low · score 0.81 · 1 source

2 Optimum temperature for growth

moderate confidence

35–37 °C

Moderate · score 6.97 · 3 sources

40 °C

Low · score 1.4 · 1 source

45 °C

Low · score 1.4 · 1 source

50 °C

Low · score 1.4 · 1 source

3 Time required to grow

low confidence

2 h

Low · score 1.5 · 1 source

12 h

Low · score 1.4 · 1 source

96 h

Low · score 0.78 · 1 source

8 mo

Low · score 0.78 · 1 source

Sources disagree: "2 h" (score 1.5) versus "12 h" (score 1.4). Both are shown; a reviewer should decide.

4 Colony morphology

low confidence

The PelA recombinant colonies were cultured and induced for expression for approximately 96 h in *Pichia pastoris*, as described by Mattanovich et al. [30].

Low · score 1.09 · 1 source

5 Gram character

moderate confidence

Gram-negative (rod, curved rod)

Moderate · score 6.9 · 5 sources

Gram-positive (rod)

Moderate · score 6.13 · 2 sources

Sources disagree: "Gram-negative (rod, curved rod)" (score 6.9) versus "Gram-positive (rod)" (score 6.13). Both are shown; a reviewer should decide.

6 Biochemical tests for identification

moderate confidence

- 16S rRNA gene sequencing
Moderate · score 5.68 · 4 sources
- Catalase — reported negative
Low · score 3.16 · 4 sources
- Hydrogen sulfide (H₂S) — reported positive
Low · score 2.43 · 3 sources
- Short-chain fatty acid profile (GLC)
Low · score 1.8 · 1 source
- Pigment production — reported positive
Low · score 0.73 · 1 source
- Motility — reported positive
Low · score 0.65 · 1 source

7 References

1. Molecular Characterization of a Novel Alkaline Endo-Pectate Lyase from *Paenibacillus borealis* and Over-Production in Bioreactor Realized by Constructing the Tandem Expression Cassettes in Host Genome 2025
PMC12430865 · via PubMed Central (open access) · supported: Time required to grow, Colony morphology, Optimum temperature for growth
2. Comparative time-series analyses of gut microbiome profiles in genetically and chemically induced lupus-prone mice and the impacts of fecal transplantation 2024
PMC11530527 · via PubMed Central (open access) · supported: Time required to grow
3. Genomic potential and physiological characteristics of C1 metabolism in novel acetogenic bacteria 2023
<https://openalex.org/W4387773887> · via OpenAlex · supported: Time required to grow
4. Characterization of cervical canal and vaginal bacteria in pregnant women with cervical incompetence 2022
c4f08d864e49434f91befd3abbb6d8a6 · via DOAJ · supported: Biochemical tests for identification
5. Impact of Pristine Graphene on Intestinal Microbiota Assessed Using a Bioreactor-Rotary Cell Culture System. 2019
MED:31260263 doi:10.1021/acsami.9b07635 · via Europe PMC · supported: Time required to grow, Biochemical tests for identification
6. *Falcatimonas natans* gen. nov., sp. nov., a strictly anaerobic, amino-acid-decomposing bacterium isolated from a methanogenic reactor of cattle waste. 2016
PMID:27506535 · via PubMed (NCBI E-utilities) · supported: Gram character, Optimum temperature for growth, Biochemical tests for identification
7. *Falcatimonas natans* gen. nov., sp. nov., a strictly anaerobic, amino-acid-decomposing bacterium isolated from a methanogenic reactor of cattle waste. 2016
MED:27506535 doi:10.1099/ijsem.0.001403 · via Europe PMC · supported: Gram character, Optimum temperature for growth, Biochemical tests for identification
8. Isolation and characterization of anaerobic microbes from marine environments in Korea 2016
<https://openalex.org/W2501951381> · via OpenAlex · supported: Time required to grow, Biochemical tests for identification
9. Startup of Microbial Fuel Cells with Pure Ferric Iron-reducing Bacteria Isolates 2016
<https://openalex.org/W3091826724> · via OpenAlex · supported: Gram character

10. **Roles of Commensal Microbiota in Pancreas Homeostasis and Pancreatic Pathologies** 2015
PMC4544440 · via PubMed Central (open access) · supported: Media used, Gram character
11. **Anaerobic psychrophiles from Lake Zub and Lake Untersee, Antarctica** 2009
<https://openalex.org/W1990691253> · via OpenAlex · supported: Biochemical tests for identification, Optimum temperature for growth
12. **Psychrophilic and Psychrotolerant Microbial Extremophiles in Polar Environments** 2009
<https://openalex.org/W181884455> · via OpenAlex · supported: Biochemical tests for identification
13. **Microbial community analysis in sludge of anaerobic wastewater treatment systems : integrated culture-dependent and culture-independent approaches** 2007
<https://openalex.org/W2153442936> · via OpenAlex · supported: Biochemical tests for identification
14. **Partitioning of Bacterial Communities between Seawater and Healthy, Black Band Diseased, and Dead Coral Surfaces** 2002
PMC127591 · via PubMed Central (open access) · supported: Biochemical tests for identification
15. **Partitioning of bacterial communities between seawater and healthy, black band diseased, and dead coral surfaces.** 2002
MED:11976091 doi:10.1128/aem.68.5.2214-2228.2002 · via Europe PMC · supported: Biochemical tests for identification
16. **[A new psychroactive bacterium, Clostridium fimentarium, isolated from cattle manure fermented at a low temperature].** 1995
PMID:8643039 · via PubMed (NCBI E-utilities) · supported: Gram character, Biochemical tests for identification
17. **Chemically Defined Medium for Growth and Sporulation of Clostridium perfringens** 1972
doi:10.1128/am.24.5.755-759.1972 · via Crossref · supported: Media used
18. **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.