



Acetivibrio thermocellus (Viljoen et al.) Tindall

27405TM

Description

Type strain. Produces endoglucanase, restriction endonuclease CthI, and restriction endonuclease CthII.

Strain designation: VPI 7372 [157]

Deposited As: *Clostridium thermocellum* Viljoen et al.

Type strain: Yes

Storage Conditions

Product format: Freeze-dried

Storage conditions: 2°C to 8°C

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Medium:

Anaerobe Systems Brucella Blood Agar Plates (BRU) (AS-111 or AS-141)

ATCC Medium 1191: Clostridium thermocellum medium (ATCC medium 1190) with 18.75 g filter paper substituted for the glucose

ATCC Medium 260: Trypticase soy agar/broth with defibrinated sheep blood

Temperature: 55°C

Atmosphere: Anaerobic

Handling Procedures

1. Open vial according to enclosed instructions.
2. Before inoculation, 1 M glucose needs to be added to the broth. Only 1 to 2



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drops needs to be added. If needed, exchange the gas in the test tube.

3. Under anaerobic conditions, withdraw 0.5 mL of #1191 from a single test tube (5 to 6 mL) and rehydrate the entire vial contents.
4. Aseptically transfer this aliquot back into the broth tube. Additional tubes may be inoculated with 0.5 mL each from the suspension. Streak several blood plates to check for colonial morphology and purity.
5. Incubate tubes under an anaerobic atmosphere at 55°C. Incubate one agar plate anaerobically for colony formation, and one aerobically for aerobic contamination check.

ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by either of the following:

- Use of an anaerobic gas chamber, or
- Placement of test tubes under a gassing cannula system connected to anaerobic gas.

Anaerobic conditions for incubation may be obtained by any of the following:

- Loose screw caps on test tubes in anaerobic chamber,
- Loose screw caps on test tubes in an activated anaerobic gas pack jar, or
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained.

Notes

Culture purity can be checked on Anaerobe Systems Brucella Blood Agar plates (AS-111)

Within 3 to 4 days, growth is evident by turbidity in the broth. It can take up to 1 week for the degradation of cellulose to occur. This will be noticeable because the paper in the broth begins to shred or have an appearance of pulp at the bottom of the tube. When glucose is added, the degradation process quickens. Colonies do not readily grow on agar surfaces. No growth should occur on agar plates incubated aerobically.

Additional information on this culture is available on the ATCC® web site at



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Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Acetivibrio thermocellus* (Viljoen et al.) Tindall (ATCC 27405)

References

References and other information relating to this material are available at www.atcc.org.

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Contact Information

ATCC
10801 University Boulevard
Manassas, VA 20110-2209
USA
US telephone: 800-638-6597
Worldwide telephone: +1-703-365-2700
Email: tech@atcc.org or contact your local distributor
