ATCC

Product Sheet

Clostridium thermocellum (ATCC® 27405™)

Please read this FIRST

Storage Temp.
Frozen: -80°C or colder
Freeze-Dried: 2°C to 8°C
Live Culture: See Propagation Section

Biosafety Level
1

Intended Use

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

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: *Clostridium thermocellum* (ATCC® 27405™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Designation: VPI 7372 [157]
Deposited Name: *Clostridium thermocellum* Viljoen et al.
Product Description: Type strain. Produces endoglucanase, restriction endonuclease CthI, and restriction endonuclease CthII.

Propagation

Medium
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

Growth Conditions
Temperature: 55°C
Atmosphere: Anaerobic gas mixture

Propagation Procedure

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

References

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

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the

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product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at www.atcc.org

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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