



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](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto: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](http://www.atcc.org).

## References

References and other information relating to this product are available online at [www.atcc.org](http://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

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the



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™)

product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. 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 product. 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 materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

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](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

© ATCC 2013. All rights reserved. ATCC is a registered trademark of the American Type Culture Collection. [07/31]

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor