



# 9689

## 9689™

### Description

*Clostridioides difficile* strain 90556-M6S [L.S. McClung 1780] is a whole-genome sequenced bacterial type strain with applications in enteric and infectious disease research. This strain is confirmed to have the *tcdA* and *tcdB* genes.

**Strain designation:** 90556-M6S [L.S. McClung 1780]

**Deposited As:** *Clostridium difficile* (Hall and O'Toole) Prevot

**Type strain:** Yes

**Toxigenic:** Yes

**Toxin genes:** *cdtB* (Binary toxin) negative; *tcdA* (Toxin A) positive; *tcdB* (Toxin B) positive

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### Storage Conditions

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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### 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.

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### BSL 2

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 submerged 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 submerged in liquid nitrogen.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

### Medium:

ATCC Medium 2107: Modified Reinforced Clostridial

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

**Temperature:** 37°C

**Atmosphere:** Anaerobic

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## Handling Procedures

1. Open vial.

2. Under anaerobic conditions aseptically rehydrate the entire pellet with approximately 0.5 mL of #2107 broth. Aseptically transfer the entire contents to a 5-6 mL tube of #2107 broth. Additional test tubes can be inoculated by transferring 0.5 mL of the primary broth tube to these secondary broth tubes. Best practice dictates the use of pre-reduced media.
3. Use several drops of the primary broth tube to inoculate a #260 plate.
4. Incubate in an anaerobic atmosphere at 37°C for 48 hours. Incubate one agar plate aerobically at 37°C to check for contamination.

#### ANAEROBIC CONDITIONS:

Anaerobic conditions for transfer may be obtained by the 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 an anaerobic chamber
- Loose screw caps on test tubes in an activated anaerobic gas pack jar
- Use of sterile butyl rubber stoppers on test tubes so that an anaerobic gas headspace is retained

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## Notes

Anaerobe Systems Brucella Blood Plate (AS-111 or AS-141) can be used to analyze colony morphology and purity.

The presence of *tcdA* and *tcdB* genes is confirmed by PCR. The binary toxin gene *cdtB* is not amplified by PCR.

Purified genomic DNA of this strain is available (ATCC 9689D-5).

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

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: 9689 (ATCC 9689)

## References

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

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