Clostridioides difficile (Prevot) Lawson et al.

BAA-1870™

Description

Clostridioides difficile strain 4118 is a whole-genome sequenced, anaerobic bacterium. This strain is toxigenic (toxinotype IIIb) and is confirmed by PCR to have the *cdtB, tcdA,* and *tcdB* genes. This product has applications in enteric disease and infectious disease research.

Strain designation: 4118
Deposited As: *Clostridium difficile* (Hall and O'Toole) Prevot
Type strain: No
Toxigenic: Yes
Toxin genes: *cdtB* (Binary toxin) positive; *tcdA* (Toxin A) positive; *tcdB* (Toxin B) positive

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 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 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 2107: Modified Reinforced Clostridial
ATCC Medium 260: Trypticase soy agar/broth with defibrinated sheep blood
Temperature: 37°C
Atmosphere: Anaerobic

Handling Procedures

1. Open vial according to enclosed instructions or visit www.atcc.org for instructions.
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 and/or agar slant.
4. Incubate in an anaerobic atmosphere at 37°C for 1-5 days. Incubate one agar plate aerobically at 37°C to check for contamination.

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

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

PFGE type NAP1.

Always use freshly prepared pre-reduced media or pre-reduced media that has been previously prepared but stored under anaerobic conditions.

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

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Clostridioides difficile* (Prevot) Lawson et al. (ATCC BAA-1870)

References

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

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