Clostridium tetanomorphum (Bulloch et al.) Bergey et al.

49273™

Description

Strain designation: NCTC 543 [259E, DSM 4474]
Deposited As: *Clostridium tetanomorphum* (Bulloch et al.) Bergey et al.
Type strain: Yes

Storage Conditions

Product format: Freeze-dried

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:
ATCC Medium 1053: Reinforced Clostridial medium (Oxoid CM149)
Temperature: 37°C
Atmosphere: Anaerobic

Handling Procedures

PROPAGATION PROCEDURE:

1. Open vial according to enclosed instructions.

2. Under anaerobic conditions, withdraw 0.5 ml of recommended broth from a single test tube (5 to 6 ml) and rehydrate the entire vial contents.

3. Aseptically transfer this aliquot back into the broth tube. A slant and a pre-reduced blood plate may also be inoculated with 0.1 ml each of the cell suspension. An aerobic blood plate may also be streaked to check for purity.

4. Incubate tubes and plate under anaerobic conditions at 37°C. Incubate blood plate aerobically at 37°C.

5. Within 24 to 48 hours, growth should be evident by turbidity in the broth. No growth should occur on the blood agar plate incubated aerobically.

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

· Tubes of media are placed under a gassing cannula system hooked to a source of oxygen free gas.

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

Maintenance of anaerobic condition using Balch tubes:

· Balch tubes (available from Bellco Glass, Vineland, NJ; are specially designed for anaerobic work and use an aluminum crimp cap to hold a rubber stopper in place. Needles can easily be inserted through the stopper, and the tubes can be pressurized to 2 atm. Alternatively, serum vials may be used, or screw cap tubes with butyl rubber stoppers, in the latter case the stopper may be removed and the tube placed under a cannula system that dispenses sterile, oxygen free gas for addition of reducing agents or inoculation.

· Resazurin is a commonly used redox indicator that is pink when the redox potential is above 50 mv, and colorless when the redox potential is below 110 mv, i.e. highly reducing. Most strict anaerobes require this low redox potential for optimum growth.

· To obtain a fully reduced medium, it is necessary that the medium be anoxic and that a reducing agent be added. Common reducing agents are sodium sulfide, cysteine, dithiothreitol, and titanium citrate.

· Syringes can be made anaerobic by one of two methods.

Notes

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: *Clostridium tetanomorphum* (Bulloch et al.) Bergey et al. (ATCC 49273)

References

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

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