



Mycoplasma fastidiosum Lemcke and Poland

33229™

Description

Strain designation: [NCTC 10180]

Deposited As: *Mycoplasma fastidiosum* Lemcke and Poland

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 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:

ATCC Medium 0988: Spiroplasma medium SP-4

Temperature: 37°C

Handling Procedures

1. Follow instructions as suggested for the culturing of

Mollicutes:

PROCEDURES FOR PROPAGATING *MOLLICUTES*:

- a) Open the vial according to the enclosed instructions.
- b) Using a Pasteur or 1.0 ml pipette, withdraw approximately 0.5 to 1.0 ml from a tube containing 5.0 ml. Rehydrate the pellet.

- c) Aseptically transfer this aliquot back into the tube. Mix well.
- d) Make serial dilutions by transferring 0.5 ml from the original tube to a tube containing 4.5 ml. Repeat process by transferring 0.5 ml from the second to a third tube, etc. Dilutions are important, not only for titration purposes, but also to keep culture in varying stages of growth. Many strains will die out rapidly once acid or alkaline conditions are reached. It is recommended to prepare several dilutions from the initial tube as the cryoprotectant used in the freeze-drying process often inhibits growth.
- e) Use an uninoculated tube of broth to serve as a control.
- f) Plates may be inoculated to check colonial morphology. You can also spot each dilution on the surface of plate (4 or more/plate) to determine the number of colony-forming units. However, not all strains do well on solid medium.
- g) Incubate all tubes and plates under the recommended conditions and appropriate temperature. The time necessary for growth will vary from strain to strain. Growth on plates generally requires additional incubation.
- h) Depending on the medium used, growth will be indicated by increased turbidity, a color change, or both.
2. Tubes are incubated aerobically or in a *candle jar*; plates are incubated under 5% CO₂. Using higher concentrations of CO₂ will result in lowering the pH of the medium. The incubation temperature is 37°C.
3. This *Mycoplasma fastidiosum* strain will show growth in four to five days. Growth is easily recognized by an indicator change from red to orange to yellow. The cells are best transferred when the medium is orange. After medium changes to yellow, cells have started to die.
4. For long term storage of *Mycoplasma fastidiosum*, freeze-drying or freezing is recommended. Liquid nitrogen storage is the best method. Optimally grown cells are centrifuged at 9000 rpm for 30 minutes, the supernatant poured off, and the packed cells resuspended in a smaller amount of #988 broth. To this, add an equal amount of sterile 20% glycerol as a cryoprotectant. This suspension is aliquoted into small plastic vials and stored at -70°C or below.
1. Follow instructions as suggested for the culturing of

Mollicutes:

PROCEDURES FOR PROPAGATING *MOLLICUTES*:

- a) Open the vial according to the enclosed instructions.
 - b) Using a Pasteur or 1.0 ml pipette, withdraw approximately 0.5 to 1.0 ml from a tube containing 5.0 ml. Rehydrate the pellet.
 - c) Aseptically transfer this aliquot back into the tube. Mix well.
 - d) Make serial dilutions by transferring 0.5 ml from the original tube to a tube containing 4.5 ml. Repeat process by transferring 0.5 ml from the second to a third tube, etc. Dilutions are important, not only for titration purposes, but also to keep culture in varying stages of growth. Many strains will die out rapidly once acid or alkaline conditions are reached. It is recommended to prepare several dilutions from the initial tube as the cryoprotectant used in the freeze-drying process often inhibits growth.
 - e) Use an uninoculated tube of broth to serve as a control.
 - f) Plates may be inoculated to check colonial morphology. You can also spot each dilution on the surface of plate (4 or more/plate) to determine the number of colony-forming units. However, not all strains do well on solid medium.
 - g) Incubate all tubes and plates under the recommended conditions and appropriate temperature. The time necessary for growth will vary from strain to strain. Growth on plates generally requires additional incubation.
 - h) Depending on the medium used, growth will be indicated by increased turbidity, a color change, or both.
2. Tubes are incubated aerobically or in a *candle jar*; plates are incubated under 5% CO₂. Using higher concentrations of CO₂ will result in lowering the pH of the medium. The incubation temperature is 37°C.
 3. This *Mycoplasma fastidiosum* strain will show growth in four to five days. Growth is easily recognized by an indicator change from red to orange to yellow. The cells are best transferred when the medium is orange. After medium changes to yellow, cells have started to die.

4. For long term storage of *Mycoplasma fastidiosum*, freeze-drying or freezing is recommended. Liquid nitrogen storage is the best method. Optimally grown cells are centrifuged at 9000 rpm for 30 minutes, the supernatant poured off, and the packed cells resuspended in a smaller amount of #988 broth. To this, add an equal amount of sterile 20% glycerol as a cryoprotectant. This suspension is aliquoted into small plastic vials and stored at -70°C or below.

Notes

Colonies display the typical fried-egg appearance.

Store vials at freezer temperatures until ready to use.

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

Colonies display the typical fried-egg appearance.

Store vials at freezer temperatures until ready to use.

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: *Mycoplasma fastidiosum* Lemcke and Poland (ATCC 33229)

References

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

Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

Disclaimers

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. Any proposed commercial use is prohibited without a license from ATCC.

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 or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity

undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure 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 material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at www.atcc.org.

Copyright and Trademark Information

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

Revision

This information on this document was last updated on 2021-05-19

Contact Information

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: tech@atcc.org or contact your local distributor
