



Mycoplasma pneumoniae Somerson et al.

15531-TTR™

Description

Mycoplasma pneumoniae FH strain of Eaton Agent [NCTC 10119] is the first *Mycoplasma* known to be the etiological agent of a human disease. The strain was isolated by Hayflick from monkey kidney tissue-culture fluids of the FH strain (Eaton Agent Virus) supplied by C. Liu, who recovered this strain in embryonated eggs from a student with atypical pneumonia. This bacterium is provided with titer data (CFU) and calculated genome copy numbers, making it useful for assay development and quality control.

Strain designation: FH strain of Eaton Agent [NCTC 10119]

Deposited As: *Mycoplasma pneumoniae*

Type strain: Yes

Storage Conditions

Product format: Frozen

Storage conditions: -80°C or colder

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 2611: Spiroplasma Medium - Special Modified Formulation

ATCC Medium 0988: Spiroplasma medium SP-4

Temperature: 37°C

Atmosphere: Broth: Aerobic; Plates: 5% CO₂ or candle jar

Handling Procedures

1. Follow instructions as suggested for the culturing of Mollicutes:

PROCEDURES FOR PROPAGATING MOLLICUTES:

- a. Add an additional 5% heat-inactivated fetal bovine serum to medium #988.
 - b. Thaw the vial and transfer its entire contents to a T-flask containing 5.0 mL of the recommended broth. Mix well.
 - c. Make serial dilutions by transferring 0.5 mL from the original tube to a tube containing 5.0 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.
 - d. Use an uninoculated tube of broth to serve as a control.
 - e. Plates may be inoculated to check colony morphology. You can also spot each dilution on the surface of plate (4 or more/plate) to determine the number of colony-forming units. Growth on agar may take up to 2 weeks when grown at 37°C in 5% CO₂.
2. *Mycoplasma pneumoniae* strains are very slow growing and produce a very light turbidity. Growth in broth is best observed after 10 to 14 days of incubation. It usually takes at least seven days for the first T-flasks to start showing growth. 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.
 3. For long term storage of *Mycoplasma pneumoniae*, 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 #2611 broth. To this, add an equal amount of sterile 20% glycerol as a cryoprotectant.

Notes

Store vials at freezer temperatures until ready to use.

ATCC Medium 988 Spiroplasma medium SP-4 can be used as an alternate.

Using a candle jar for CO₂ conditions may be used for those strains whose medium has an indicator present. CO₂ incubators may lower the pH of the medium enough to cause a color change.

This change may make it difficult to observe growth with those strains that show little turbidity.

Growth may take up to 2 weeks.

Commercially available SP4 Glucose (Remel catalog # R112585 or #R20376 for broth, and Remel catalog # R20276 for agar) may yield the best growth.

This strain requires an additional 5% heat-inactivated fetal bovine serum be added to ATCC Medium #988 or #2611 or SP4 Glucose broths to sustain growth of this strain.

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 pneumoniae* Somerson et al. (ATCC 15531-TTR)

References

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

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