Product Information Sheet for NR-51859

Streptococcus pneumoniae, Strain EMC23F

Catalog No. NR-51859

For research use only. Not for use in humans.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Streptococcaceae, Streptococcus*
Species: *Streptococcus pneumoniae*
Strain: EMC23F (also referred to as 1212458)
Original Source: The antibiotic-resistant variant *Streptococcus pneumoniae (S. pneumoniae),* strain EMC23F is a human wild-type clinical isolate that was found to be naturally resistant to trimethoprim.
Comments: *S. pneumoniae*, strain EMC23F is reported to be resistant to trimethoprim at a concentration of 25 µg/mL.[1,2]

S. pneumoniae is a Gram-positive, α-hemolytic diplococcal aerotolerant anaerobe that is a major cause of pneumonia, bacterial meningitis and otitis media. *S. pneumoniae* has a polysaccharide capsule that acts as a virulence factor for the organism. There are over ninety different capsular types of *S. pneumoniae* which differ in virulence, prevalence and extent of drug resistance.[3,4]

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in Todd-Hewitt broth containing supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-51859 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Media:
Tryptic Soy broth or Todd-Hewitt broth containing 0.5% (w/v) yeast extract broth or equivalent
Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Todd-Hewitt agar or equivalent
Incubation:
Temperature: 37°C
Atmosphere: Aerobic, with 5% CO_2

Propagation:
1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 1 day.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Streptococcus pneumoniae,* Strain EMC23F, NR-51859."

Biosafety Level: 2
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

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3. Jedrzejas, M. J. "Pneumococcal Virulence Factors: Structure and Function." Microbiol. Mol. Biol. Rev. 65 (2001): 187-207. PubMed: 11381099.
4. Habib, M., B. D. Porter and C. Satzke. "Capsular Serotyping of *Streptococcus pneumoniae* Using the Quellung Reaction." J. Vis. Exp. 24 (2014): e51208. PubMed: 24637727.
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