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SUPPORTING INFECTIOUS DISEASE RESEARCH

# *Streptococcus pneumoniae*, Strain GA47522

# Catalog No. NR-19171

# For research use only. Not for human use.

#### Contributor:

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#### Manufacturer:

**BEI Resources** 

#### **Product Description:**

Bacteria Classification: Streptococcaceae, Streptococcus Species: Streptococcus pneumoniae Strain: GA47522 (also referred to as SPAR99) Serotype: 15C<sup>1</sup> Original Source: Streptococcus pneumoniae (S.

pneumoniae), strain GA47522 was isolated in 2006 from the blood of a patient with bacteremia in Georgia, USA.<sup>1</sup>

<u>Comments</u>: Serotyping of *S. pneumoniae*, strain GA47522 was determined by the Quellung reaction and confirmed by genomic analysis.<sup>1</sup> The complete genome of *S. pneumoniae*, strain GA47522 has been sequenced (GenBank: <u>AILA00000000</u>).

*S. pneumoniae* is a Gram-positive,  $\alpha$ -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.<sup>2,3</sup>

# **Material Provided:**

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

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

#### Packaging/Storage:

NR-19171 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 or equivalent Tryptic Soy agar or Todd-Hewitt agar or Tryptic Soy agar with 5% sheep blood or equivalent Incubation:

Temperature: 37°C

Atmosphere: Aerobic with 5% CO<sub>2</sub>

- 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 24 hours.

<u>Note</u>: *Streptococcus* species are generally fast growers. To avoid overgrowth of the culture, incubation without shaking is recommended for growth in broth.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Streptococcus pneumoniae*, Strain GA47522, NR-19171."

# **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. <u>Biosafety in</u> <u>Microbiological and Biomedical Laboratories</u>. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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#### **References:**

- 1. Chancey, S. T., Personal Communication.
- Mitchell, A. M. and T. J. Mitchell. "Streptococcus pneumoniae: Virulence Factors and Variation." <u>Clin.</u> <u>Microbiol. Infect.</u> 16 (2010): 411-418. PubMed: 20132250.
- Jedrzejas, M. J. "Pneumococcal Virulence Factors: Structure and Function." <u>Microbiol. Mol. Biol. Rev.</u> 65 (2001): 187-207. PubMed: 11381099.
- Habib, M., B. D. Porter and C. Satzke. "Capsular Serotyping of *Streptococcus pneumoniae* Using the Quellung Reaction." <u>J. Vis. Exp.</u> 24 (2014): e51208. PubMed: 24637727.

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