

# Product Information Sheet for NR-19111

## ***Streptococcus pneumoniae*, Strain GA16242**

**Catalog No. NR-19111**

**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: GA16242 (also referred to as SPAR39)

Serotype: 6A/C<sup>1</sup>

Original Source: *Streptococcus pneumoniae* (*S. pneumoniae*), strain GA16242 was isolated in 2001 from the blood of a patient with bacteremia in Georgia, USA.<sup>1</sup>

Comments: Serotyping of *S. pneumoniae*, strain GA16242 was determined by the Quellung reaction and confirmed by genomic analysis.<sup>1</sup> Strain GA16242 was deposited to BEI Resources as sensitive to amoxicillin, chloramphenicol, clindamycin, gatifloxacin, levofloxacin, cefotaxime, tetracycline and vancomycin, intermediately resistant to meropenem and penicillin and resistant to cefuroxime, erythromycin and trimethoprim/sulfamethoxazole. The complete genome of *S. pneumoniae*, strain GA16242 has been sequenced (GenBank: [AGPE00000000](#)).

*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.

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

### **Packaging/Storage:**

NR-19111 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 1 day.

Note: *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 GA16242, NR-19111."

### **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:**

1. Chancey, S. T., Personal Communication.
2. Mitchell, A. M. and T. J. Mitchell. "*Streptococcus pneumoniae*: Virulence Factors and Variation." Clin. Microbiol. Infect. 16 (2010): 411-418. PubMed: 20132250.
3. Jedrzejewski, 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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