

Streptococcus pneumoniae, Strain GA47562

Catalog No. NR-19172

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: GA47562 (also referred to as SPAR100)

Serotype: 11A¹

Original Source: Streptococcus pneumoniae (*S. pneumoniae*), strain GA47562 was isolated in 2006 from the blood of a patient with pneumonia in Georgia, USA.¹

Comments: Serotyping of *S. pneumoniae*, strain GA47562 was determined by the Quellung reaction and confirmed by genomic analysis.¹ Strain GA47562 was deposited to BEI Resources as sensitive to amoxicillin, cefuroxime, ceftriaxone, cefotaxime, chloramphenicol, clindamycin, levofloxacin, linezolid, meropenem, penicillin, synercid, telithromycin, tetracycline, trimethoprim/sulfamethoxazole and vancomycin and resistant to erythromycin. The complete genome of *S. pneumoniae*, strain GA47562 has been sequenced (GenBank: [ALCY00000000](#)).

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.^{2,3}

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-19172 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% CO₂

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 GA47562, NR-19172."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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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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