Product Information Sheet for NR-30562

Streptococcus agalactiae, Strain BSU188

Catalog No. NR-30562

For research use only. Not for human use.

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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Streptococcaceae, Streptococcus*
Species: *Streptococcus agalactiae* (also referred to as *Streptococcus difficile*)[1]
Serogroup: Group B[2]
Strain: BSU188
Original Source: *Streptococcus agalactiae* (*S. agalactiae*), strain BSU188 was isolated in 2003 by Dr. Nadia Brimil from the vagina of a pregnant adult female in Aachen, Germany.[2-4]
Comment: *S. agalactiae*, strain BSU188 was deposited as serotype Ia, MLST sequence type 2 and surface protein negative, and is part of a genome sequencing project at the J. Craig Venter Institute's Genomic Sequencing Center for Infectious Diseases (GSCID).[2,5] The complete genome of *S. agalactiae*, strain BSU188 has been sequenced (GenBank: ALRF00000000).

S. agalactiae is a Gram-positive cocci characterized by the presence of Group B Lancefield antigen, and is known as Group B *Streptococcus* (GBS). GBS causes illness in people of all ages. In newborns, GBS most commonly causes sepsis (infection of the blood), pneumonia (infection in the lungs), and sometimes meningitis (infection of the fluid and lining around the brain). The most common problems caused by GBS in adults are bloodstream infections, pneumonia, skin and soft-tissue infections, and bone and joint infections. In addition to the presence of the Group B Lancefield antigen, GBS is also characterized by its ability to hydrolyze sodium hippurate and sensitivity to bile. *S. agalactiae*'s polysaccharide antiphagocytic capsule is its main virulence factor.[6] Genomes from multiple serotypes have been sequenced for comparative analyses.[7]

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

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

Packaging/Storage:
NR-30562 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 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 24 hours.

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 agalactiae*, Strain BSU188, NR-30562."

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. 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. Kawamura, Y., et al. "High Genetic Similarity of *Streptococcus agalactiae* and *Streptococcus difficilis*: *S. difficilis* Eldar et al. 1995 is a Later Synonym of *S. agalactiae* Lehmann and Neumann 1896 (Approved Lists 1980)." Int. J. Syst. Evol. Microbiol. 55 (2005): 961-965. PubMed: 15774692.
2. Stanhope, M. J., Personal Communication.
3. Brimil, N., et al. "Epidemiology of *Streptococcus agalactiae* Colonization in Germany." Int. J. Med. Micriobiol. 296 (2006): 39-44. PubMed: 16361113.
4. Richards, V. P., et al. "Transcriptomic and Genomic Evidence for *Streptococcus agalactiae* Adaptation to the Bovine Environment." BMC Genomics 14 (2013): 920. PubMed: 24369756.
5. Stanhope, M. J. "Evolutionary Genomics and Population Genetics of Pathogenic Streptococci." J. Craig Venter Institute's Genomic Sequencing Center for Infectious Diseases. (2009) <http://gsc.jcvi.org/docs/GSC_Streptococcus.pdf>
6. Smith, J. P., K. K. Durfee and J. H. Marymount Jr. "A Review of Laboratory Methods for Identification of Group B Streptococci (*Streptococcus agalactiae*)." Am. J. Med. Technol. 45 (1979): 199-204. PubMed: 371403.
7. Tettelin, H., et al. "Genome Analysis of Multiple Pathogenic Isolates of *Streptococcus agalactiae*: Implications for Microbial "Pan-Genome"." Proc. Natl. Acad. Sci. USA 102 (2005): 13950-13955. PubMed: 16172379.