

### ***Streptococcus agalactiae*, Strain MRI Z1-204**

**Catalog No. NR-36672**

**For research use only. Not for human use.**

#### **Contributor:**

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#### **Manufacturer:**

BEI Resources

#### **Product Description:**

Bacteria Classification: *Streptococcaceae*, *Streptococcus*

Species: *Streptococcus agalactiae*

Serogroup: Group B

Strain: MRI Z1-204

Original Source: *Streptococcus agalactiae* (*S. agalactiae*), strain MRI Z1-204 was isolated in 1998 from a dog (*Canis familiaris*) in Scotland.<sup>1</sup>

Comment: The complete genome of *S. agalactiae*, strain MRI Z1-204 has been sequenced (GenBank: [ANQI00000000](#)).<sup>2</sup>

*S. agalactiae* is a Gram-positive coccus 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.<sup>3</sup> Genomes from multiple serotypes have been sequenced for comparative analyses.<sup>4</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-36672 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% sheep blood or Todd-Hewitt agar 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 (incubate the broth without shaking).

Note: *Streptococcus* sp. 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 MRI Z1-204, NR-36672."

#### **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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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# References:

1. Foster, G. Personal Communication.
2. Stanhope, M. J. "Evolutionary Genomics and Population Genetics of Pathogenic Streptococci." [J. Craig Venter Institute](#). (2009)  
<<http://gsc.jcvi.org/projects/gsc/streptococcus/index.shtml>>
3. 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.
4. 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.

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