

## ***Streptococcus* sp., Strain BS21**

**Catalog No. HM-889**

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

### **Contributor:**

Maria V. Sizova, Ph.D., Department of Biology, Northeastern University, Boston, Massachusetts, USA

### **Manufacturer:**

BEI Resources

### **Product Description:**

Bacteria Classification: *Streptococcaceae*, *Streptococcus*

Species: *Streptococcus* sp.

Strain: BS21

Original Source: *Streptococcus* sp., strain BS21 is a human oral cavity isolate.<sup>1-3</sup>

Comments: *Streptococcus* sp., strain BS21 ([HMP ID 1515](#)) is a reference genome for [The Human Microbiome Project](#) (HMP). HMP is an initiative to identify and characterize human microbial flora. The complete genome of *Streptococcus* sp., strain BS21 was sequenced at the [J. Craig Venter Institute](#) (GenBank: [JANT00000000](#)).

Note: HMP material is taxonomically classified by the depositor. Quality control of these materials is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material.

*Streptococcus* species are non-sporulating, Gram-positive cocci often part of the normal commensal flora of the human mouth, skin, intestine and upper respiratory tract.<sup>4</sup> A few *Streptococcus* species are pathogenic and responsible for many cases of meningitis, bacterial pneumonia, endocarditis and necrotizing fasciitis.<sup>5,6</sup>

### **Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Brain Heart Infusion broth supplemented with 10% glycerol.

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

### **Packaging/Storage:**

HM-889 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 Brain Heart Infusion broth or equivalent Tryptic Soy agar with 5% defibrinated sheep blood or Brain Heart Infusion agar or equivalent

#### Incubation:

Temperature: 37°C

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

### 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.

### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Streptococcus* sp., Strain BS21, HM-889."

### **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).

### **Disclaimers:**

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

### **Use Restrictions:**

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

**References:**

1. Stancyk, D. "Competition Between Novel *Streptococcus* spp. from the Human Oral Cavity." MS Thesis. Northeastern University, 2014.
2. Sizova, M. V., et al. "New Approaches for Isolation of Previously Uncultivated Oral Bacteria." Appl. Environ. Microbiol. 78 (2012): 194-203. PubMed: 22057871.
3. [HMP ID 1515](#) (*Streptococcus* sp., strain BS21)
4. Hardie, J. M. and R. A. Whiley. "Classification and Overview of the Genera *Streptococcus* and *Enterococcus*." Soc. Appl. Bacteriol. Symp. Ser. 83 (1997): 1S-11S. PubMed: 9436312.
5. Musser, J. M. and S. A. Shelburne III. "A Decade of Molecular Pathogenomic Analysis of Group A *Streptococcus*." J. Clin. Invest. 119 (2009): 2455-2463. PubMed: 19729843.
6. Nobbs, A. H., R. J. Lamont and H. F. Jenkinson. "*Streptococcus* Adherence and Colonization." Microbiol. Mol. Biol. Rev. 73 (2009): 407-450. PubMed: 19721085.

ATCC® is a trademark of the American Type Culture Collection.

