

***Streptococcus sanguinis*, Strain VMC66**

Catalog No. HM-275

For research use only. Not for use in humans.

Contributor:

Todd Kitten, Ph.D., Associate Professor of Oral & Craniofacial Molecular Biology and Microbiology & Immunology, Virginia Commonwealth University, Richmond, Virginia, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Streptococcaceae*, *Streptococcus*

Species: *Streptococcus sanguinis*

Strain: VMC66

Note: The strain designation, strain VCM66 on the vial label for lots 59265308, 70010075 and 70058043 is incorrect. The correct strain designation is VMC66.

Original Source: *Streptococcus sanguinis* (*S. sanguinis*), strain VMC66 was isolated from a patient with a subacute case of bacterial endocarditis.¹

Comments: *S. sanguinis*, strain VMC66 ([HMP ID 9398](#)) 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 *S. sanguinis*, strain VMC66 was sequenced by the Human Genome Sequencing Center at [Baylor College of Medicine](#) (GenBank: [AEVH00000000](#)).

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.

S. sanguinis is an indigenous, non-motile, Gram-positive coccus that colonizes the human oral cavity. It is particularly found in dental plaque, where it serves to tether other oral bacteria that contribute to the development of caries and periodontal disease. *S. sanguinis* may gain entrance into the bloodstream during dental cleanings and surgeries, where it can colonize mitral and aortic heart valves leading to subacute bacterial endocarditis.²

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:

HM-275 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:

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% 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.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Streptococcus sanguinis*, Strain VMC66, HM-275."

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.

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.

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. Kitten, T., Personal Communication.
2. [HMP ID 9398](#) (*Streptococcus sanguinis*, strain VMC66)
3. Xu, P., et al. "Genome of the Opportunistic Pathogen *Streptococcus sanguinis*." *J. Bacteriol.* 189 (2007): 3166-3175. PubMed: 17277061.

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

