

Streptococcus sanguinis, Strain CC94A

Catalog No. HM-1061

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 sanguinis

Strain: CC94A

Original Source: Streptococcus sanguinis (S. sanguinis), strain CC94A was isolated in October 2010 from colonic biopsy tissue of a human subject in Victoria, British Columbia, Canada.^{1,2}

Comments: S. sanguinis, strain CC94A ([HMP ID 1196](#)) 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 CC94A was sequenced at the [Broad Institute](#) (GenBank: [AZJC00000000](#)).

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.^{3,4}

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-1061 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% CO₂ 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 1 to 3 days.

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 CC94A, HM-1061."

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. Allen-Vercoe, E., Personal Communication.
2. [HMP ID 1196](#) (*Streptococcus sanguinis*, strain CC94A)
3. Xu, P., et al. "Genome of the Opportunistic Pathogen *Streptococcus sanguinis*." *J. Bacteriol.* 189 (2007): 3166-3175. PubMed: 17277061.
4. Chen, L., et al. "Identification of Hydrogen Peroxide Production-Related Genes in *Streptococcus sanguinis* and their Functional Relationship with Pyruvate Oxidase." *Microbiology* 157 (2011): 13-20. PubMed: 20847003.

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