

Product Information Sheet for HM-1070

Actinomyces johnsonii, Strain F0510

Catalog No. HM-1070

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Actinomycetaceae*, *Actinomyces*

Species: *Actinomyces johnsonii*

Strain: F0510

Original Source: *Actinomyces johnsonii* (*A. johnsonii*), strain F0510 was isolated in September 2008 from the supragingival plaque biofilm of a molar of a medically healthy 3-year-old female with no dental caries in Boston, Massachusetts, USA.^{1,2}

Comments: *A. johnsonii*, strain F0510 ([HMP ID 1549](#)) 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 *A. johnsonii*, strain F0510 was sequenced at the Genome Institute at [Washington University](#) (GenBank: [AWS000000000](#)).

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.

A. johnsonii is a Gram-positive, rod-shaped, facultative anaerobe which generally inhabits the oral cavity of humans.^{3,4} Present from infancy to adulthood, *Actinomyces* species are the primary colonizers which initiate plaque formation and provide a platform for the adherence of other plaque bacteria, inviting infectious disease development.^{5,6}

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in *Actinomyces* broth supplemented with 10% glycerol.

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

Packaging/Storage:

HM-1070 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:

Actinomyces broth or equivalent

Actinomyces agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: 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 up to 10 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Actinomyces johnsonii*, Strain F0510, HM-1070."

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. Dewhirst, F. E. and J. Izard, Personal Communication.
2. GenBank: [AWS00000000](#)
3. Johnson, J. L., et al. "*Actinomyces georgiae* sp. nov., *Actinomyces gerencseriae* sp. nov., Designation of Two Genospecies of *Actinomyces naeslundii*, and Inclusion of *A. naeslundii* Serotypes II and III and *Actinomyces viscosus* Serotype II in *A. naeslundii* Genospecies 2." Int. J. Syst. Bacteriol. 40 (1990): 273-286. PubMed: 2397195.
4. Henssge, U., et al. "Emended Description of *Actinomyces naeslundii* and Descriptions of *Actinomyces oris* sp. nov. and *Actinomyces johnsonii* sp. nov., Previously Identified as *Actinomyces naeslundii* Genospecies 1, 2 and WVA 963." Int. J. Syst. Evol. Microbiol. 59 (2009): 509-516. PubMed: 19244431.
5. Yeung, M. K. "Molecular and Genetic Analyses of *Actinomyces* spp." Crit. Rev. Oral Biol. Med. 10 (1999): 120-138. PubMed: 10759417.
6. Stingu, C. S., et al. "Rapid Identification of Oral *Actinomyces* Species Cultivated from Subgingival Biofilm by MALDI-TOF-MS." J. Oral Microbiol. 7 (2015): 26110. PubMed: 25597306.

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