

Product Information Sheet for HM-1289

***Fusobacterium nucleatum*, Strain MJR7757B**

Catalog No. HM-1289

For research use only. Not for human use.

Contributor:

Amanda Lewis, Ph.D., Assistant Professor, Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, Missouri, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Fusobacteriaceae*, *Fusobacterium*

Species: *Fusobacterium nucleatum*

Strain: MJR7757B

Original Source: *Fusobacterium nucleatum* (*F. nucleatum*), strain MJR7757B is a vaginal isolate obtained in 2014 from a pregnant woman in St. Louis, Missouri, USA.^{1,2}

Comments: *F. nucleatum*, strain MJR7757B (HMP ID 3221) 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 *F. nucleatum*, strain MJR7757B was sequenced at the Genome Institute at [Washington University](#) (GenBank: [LRPY00000000](#)).

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.

F. nucleatum is an anaerobic, non-motile, non-sporulating, Gram-negative rod commonly found in the microflora of the human oral and gastrointestinal tracts.^{3,4} It has been associated with periodontal disease but is commonly found in high numbers in healthy and successfully treated sites.³ In general, *Fusobacteria* are ubiquitous in the normal flora of the oropharyngeal, gastrointestinal, and genitourinary tracts of healthy humans. If the host mucosal barrier weakens to allow these commensal organisms to reach the bloodstream, significant pathology may result including dental abscess formation, endocarditis, or other systemic infections.⁵

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Modified Chopped Meat broth supplemented with 10% glycerol.

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

Packaging/Storage:

HM-1289 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:

Modified Reinforced Clostridial broth or Modified Chopped Meat broth or equivalent

Tryptic Soy agar with 5% defibrinated sheep blood or Brucella agar with hemin (5 µg/mL) and vitamin K1 (10 µg/mL) supplemented with 5% defibrinated sheep blood or Columbia agar with hemin and vitamin K1 supplemented with 5% defibrinated sheep blood¹ 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 2 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: *Fusobacterium nucleatum*, Strain MJR7757B, HM-1289."

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.

Disclaimers:

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References:

1. Lewis, A., Personal Communication.
2. [HMP ID 3221](#) (*Fusobacterium nucleatum*, strain MJR7757B)
3. Dzink, J. L., M. T. Sheenan and S. S. Socransky. "Proposal of Three Subspecies of *Fusobacterium nucleatum* Knorr 1922: *Fusobacterium nucleatum* subsp. *nucleatum* subsp. nov., comb. nov.; *Fusobacterium nucleatum* subsp. *polymorphum* subsp. nov., nom. rev., comb. nov.; and *Fusobacterium nucleatum* subsp. *vincentii* subsp. nov., nom. rev., comb. nov." *Int. J. Syst. Bacteriol.* 40 (1990): 74-78. PubMed: 2223601.
4. Gharbia, S. E. and H. N. Shah. "*Fusobacterium nucleatum* subsp. *fusiforme* subsp. nov. and *Fusobacterium nucleatum* subsp. *animalis* subsp. nov. as Additional Subspecies within *Fusobacterium nucleatum*." *Int. J. Syst. Bacteriol.* 42 (1992): 296-298. PubMed: 1581188.
5. Bennett, K. W. and A. Eley. "Fusobacteria: New Taxonomy and Related Diseases." *J. Med. Microbiol.* 39 (1993): 246-254. PubMed: 8411084.

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