

***Fusobacterium periodonticum*, Strain 2_1_31**

Catalog No. HM-42

For research use only. Not for human use.

Contributor:

Emma Allen-Vercoe, Assistant Professor, Department of Molecular and Cellular Biology, University of Guelph, Guelph, Ontario, Canada

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Fusobacteriaceae*, *Fusobacterium*

Species: *Fusobacterium periodonticum* (Note: The label on the vial is incorrect; the species was identified as *Fusobacterium periodonticum* in 2014.¹)

Strain: 2_1_31

Original Source: *Fusobacterium periodonticum* (*F. periodonticum*), strain 2_1_31 was isolated in 2007 from inflamed biopsy tissue taken from the ascending colon of a 25-year-old female patient with active Crohn's disease in Alberta, Canada.^{2,3}

Comments: *F. periodonticum*, strain 2_1_31 (HMP ID 403) 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. periodonticum*, strain 2_1_31 is currently being sequenced at the [Broad Institute](#) (GenBank: [ACDC00000000](#)).

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. periodonticum is an obligately anaerobic, non-motile, non-sporulating, Gram-negative rod commonly found in the microflora of a normal human mouth and gut.^{4,5} It is an opportunistic pathogen known for involvement in patients with periodontal disease, as well as other human pathologies such as inflammatory bowel disease.¹

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-42 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 Chopped Meat broth or equivalent

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 Modified Chopped Meat broth under anaerobic atmosphere.
3. Inoculate additional broth tubes with 0.5 mL each from the suspension. Slants may be inoculated with 0.2 mL each. Streak several agar plates to check for colony morphology and purity.
4. Incubate cultures at 37°C under anaerobic atmosphere for 1 to 2 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 periodonticum*, Strain 2_1_31, HM-42."

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:

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. Manson McGuire, A., et al. "Evolution of Invasion in a Diverse Set of *Fusobacterium* Species." *mBio* 5 (2014): e01864. PubMed: 25370491.
2. Allen-Vercoe, E., Personal Communication.
3. [HMP ID 403](#) (*Fusobacterium periodonticum*, strain 2_1_31)
4. Slots, J., T. V. Potts and P. A. Mashimo. "*Fusobacterium periodonticum*, a New Species from the Human Oral Cavity." *J. Dent. Res.* 62 (1983): 960-963. PubMed: 6575999.
5. Strauss, J., et al. "Phenotypic and Genotypic Analyses of Clinical *Fusobacterium nucleatum* and *Fusobacterium periodonticum* Isolates from the Human Gut." *Anaerobe* 14 (2008): 301-309. PubMed: 19114111.

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

