

***Paenibacillus* sp., Oral Taxon 786, Strain D14**

Catalog No. HM-78

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Paenibacillaceae*, *Paenibacillus*

Species: *Paenibacillus* sp.

Subtaxon: Oral Taxon 786

Strain: D14 (also referred to as 1_A_40A FAA/D14)

Original Source: *Paenibacillus* sp., Oral Taxon 786, strain D14 was isolated in 2007 from an oral swab taken from a 38-year-old female patient with ulcerative colitis in Calgary, Alberta, Canada.¹

Comments: *Paenibacillus* sp., Oral Taxon 786, strain D14 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 *Paenibacillus* sp., Oral Taxon 786, strain D14 was sequenced at the [Broad Institute](#) (GenBank: [ACIH00000000](#)).

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.

Paenibacillus sp. are Gram-positive, Gram-negative or Gram-variable, facultative anaerobes or strictly aerobic, spore-forming, rod-shaped bacterium that are motile by means of peritrichous flagella.² These bacteria have been isolated from geothermal regions, spacecraft assembly equipment, and human clinical samples.^{3,4}

Material Provided:

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

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

Packaging/Storage:

HM-78 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:

Nutrient broth or equivalent

Nutrient agar or equivalent

Incubation:

Temperature: 30°C

Atmosphere: Aerobic

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 30°C for 2 to 4 day.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Paenibacillus* sp., Oral Taxon 786, Strain D14, HM-78.”

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. Allen-Vercoc, E., Personal Communication.
2. Shida, O., et al. "Transfer of *Bacillus alginolyticus*, *Bacillus chondroitinus*, *Bacillus curdlanolyticus*, *Bacillus glucanolyticus*, *Bacillus kobensis*, and *Bacillus thiaminolyticus* to the Genus *Paenibacillus* and Emended Description of the Genus *Paenibacillus*." Int. J. Syst. Bacteriol. 47 (1997): 289-298. PubMed: 9103612.
3. Osman, S., M. Satomi and K. Venkateswaran. "*Paenibacillus pasadenensis* sp. nov. and *Paenibacillus barengoltzii* sp. nov., Isolated from a Spacecraft Assembly Facility." Int. J. Syst. Evol. Microbiol. 56 (2006): 1509-1514. PubMed: 16825621.
4. Arzu, C. C., et al. "The Genetic Diversity of Genus *Bacillus* and the Related Genera Revealed by 16S rRNA Gene Sequences and Ardra Analyses Isolated from Geothermal Regions of Turkey." Braz. J. Microbiol. 43 (2012): 309-324. PubMed: 24031834.

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