# Product Information Sheet for HM-79

## *Ruminococcaceae* sp., Strain D16

## Catalog No. HM-79

## For research use only. Not for human use.

### Contributor:
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### Manufacturer:
BEI Resources

### Product Description:
Bacteria Classification: Clostridiales, *Ruminococcaceae*
Species: *Ruminococcaceae* sp.
Strain: D16
Original Source: *Ruminococcaceae* sp., strain D16 was isolated in 2007 from the ascending colon of a 57-year-old male patient undergoing a colonoscopy as part of a colon cancer screen procedure in Alberta, Canada.[1,2]
Comments: *Ruminococcaceae* sp., strain D16 (HMP ID 0866) 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 *Ruminococcaceae* sp., strain D16 was sequenced at the Broad Institute (GenBank: ADDX00000000).
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.

*Ruminococcaceae* species are usually strictly anaerobic, chemo-organotrophic, non-sporulating, rod-shaped bacteria that require fermentable carbohydrates to grow. *Ruminococcaceae* species have a Gram-positive cell wall but many strains have been reported to stain Gram-negative or Gram-variable.[3] Most *Ruminococcaceae* species are found in significant number in the gut of humans and animals, allowing the host to digest cellulose.

### Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with hemin (5 µg/mL), menadione (1 µg/mL) and 10% glycerol.

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

### Packaging/Storage:
HM-79 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 supplemented with hemin (5 µg/mL) and menadione (1 µg/mL)[1] or equivalent
Tryptic Soy agar supplemented with hemin (5 µg/mL) and menadione (1 µg/mL)[1] 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 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: *Ruminococcaceae* sp., Strain D16, HM-79."

### 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.

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## References:

1. Allen-Vercoe, E., Personal Communication.
2. HMP ID 0866 (*Ruminococcaceae* sp., strain D16)
3. Dehority, B. A. "Cellulolytic Cocci Isolated from the Cecum of Guinea Pigs *(Cavia porcellus)*." Appl. Environ. Microbiol. 33 (1977): 1278-1283. PubMed: 879784.
4. Vital, M., et al. "Diet is a Major Factor Governing the Fecal Butyrate-Producing Community Structure Across Mammalia, Aves and Reptilia." ISME J. 9 (2015): 832-843. PubMed: 25343515.
5. Wang, W., et al. "Metagenomic Profiling of Gut Microbial Communities in Both Wild and Artificially Reared Bar-Headed Goose *(Anser indicus)*." Microbiologyopen 6 (2017): 1-9. PubMed: 27998035.
6. Matsui, H., et al. "Effects of Feed Intake on the Diversity and Population Density of Homoacetogens in the Large Intestine of Pigs." Asian-Australas J. Anim. Sci. 32 (2019): 1907-1913. PubMed: 31010997.



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