# Product Information Sheet for HM-31

## *Bilophila* sp., Strain 4_1_30

## Catalog No. HM-31

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

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

### Product Description:
Bacteria Classification: *Desulfovibrionaceae, Bilophila*
Species: *Bilophila* sp.
Strain: 4_1_30
Original Source: *Bilophila* sp., strain 4_1_30 was isolated from the colon of a patient undergoing a colon cancer screening in Calgary, Alberta, Canada.[1,2]
Comments: *Bilophila* sp., strain 4_1_30 (HMP ID 0178) 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 *Bilophila* sp, strain 4_1_30 was sequenced at the Genome Institute at the Broad Institute (GenBank: ADCO00000000).
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.

*Bilophila* sp. is a Gram-negative, non-motile, non-spore forming, anaerobic rod that has been isolated from human feces as well as patients with appendicitis.[3] *Bilophila wadsworthia*, the only defined species of *Bilophila*, has been found to be reduced in patients with autism, but over-represented in colorectal cancer patients and individuals with systematic colon inflammation.[4-6]

### 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-31 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
Modified Chopped Meat broth with 2% 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 3 to 4 days.

### Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Bilophila* sp., Strain 4_1_30, HM-31."

### 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. Allen-Vercoe, E., Personal Communication.
2. HMP ID 0178 (*Bilophila* sp., strain 4_1_30)
3. Baron, E. J., et al. "*Bilophila wadsworthia*, gen. nov. and sp. nov., a Unique Gram-Negative Anaerobic Rod Recovered from Appendicitis Specimens and Human Faeces." J. Gen. Microbiol. 135 (1989): 3405-3411. PubMed: 2636263.
4. Strati, F., et al. "New Evidences on the Altered Gut Microbiota in Autism Spectrum Disorders." Microbiome 5 (2017): 24. PubMed: 28222761.
5. Feng, Z., et al. "A Human Stool-Derived *Bilophila wadsworthia* Strain Caused Systemic Inflammation in Specific-Pathogen-Free Mice." Gut Pathog. 9 (2017): 59. PubMed: 29090023.
6. Natividad, J. M., et al. "*Bilophila wadsworthia* Aggravates High Fat Diet Induced Metabolic Dysfunctions in Mice." Nat. Commun. 9 (2018): 2802. PubMed: 30022049.




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