

***Achromobacter xylosoxidans*, Strain C54**

Catalog No. HM-235

For research use only. Not for use in humans.

Contributor:

Michael G. Surette, Professor, Department of Microbiology and Infectious Diseases, University of Calgary, Alberta, Canada

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Alcaligenaceae*, *Achromobacter*

Species: *Achromobacter xylosoxidans*

Strain: C54

Original Source: *Achromobacter xylosoxidans* (*A. xylosoxidans*), strain C54 was isolated in February 2006 from a non-cystic fibrosis bronchiectasis sputum sample from a 65-year-old male patient.¹

Comments: *A. xylosoxidans*, strain C54 ([HMP_ID_0005](#)) 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 *A. xylosoxidans*, strain C54 was sequenced at the [Broad Institute](#) (GenBank: [ACRC00000000](#)).

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.

A. xylosoxidans is a Gram-negative, aerobic, motile, rod-shaped bacterium usually found in a variety of aquatic environments, including well water, swimming pools and intravenous fluids.^{2,3,4} It is an opportunistic human pathogen capable of causing serious infections, including bacteremia, meningitis, pneumonia and peritonitis, particularly in immunocompromised hosts.⁵ *A. xylosoxidans* is a clinically important pathogen in cystic fibrosis.⁶

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-235 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:

Nutrient broth or equivalent
Nutrient agar or equivalent

Incubation:

Temperature: 37°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 37°C for 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: *Achromobacter xylosoxidans*, Strain C54, HM-235.”

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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Surette, M.G., Personal Communication.
2. Yabuuchi, E. and A. Oyama. "*Achromobacter xylosoxidans* n. sp. from Human Ear Discharge." Jpn. J. Microbiol. 15 (1971): 477-481. PubMed: 5316576.
3. Yabuuchi, E. and I. Yano. "*Achromobacter* gen. nov. and *Achromobacter xylosoxidans* (ex Yabuuchi and Ohyama 1971) nom. rev." Int. J. Syst. Bacteriol. 31 (1981): 477-478.
4. Yabuuchi, E., et al. "Emendation of Genus *Achromobacter* and *Achromobacter xylosoxidans* (Yabuuchi and Yano) and Proposal of *Achromobacter ruhlandii* (Packer and Vishniac) Comb. Nov., *Achromobacter piechaudii* (Kiredjian et al.) Comb. Nov., and *Achromobacter xylosoxidans* Subsp. *denitrificans* (Rüger and Tan) Comb. Nov." Microbiol. Immunol. 42 (1998): 429-438. PubMed: 9688077.
5. Tokuyasu, H., et al. "Infective Endocarditis Caused by *Achromobacter xylosoxidans*: A Case Report and Review of the Literature." Intern. Med. 51 (2012): 1133-1138. PubMed: 22576403.
6. Hansen, C. R., et al. "Inflammation in *Achromobacter xylosoxidans* Infected Cystic Fibrosis Patients." J. Cyst. Fibros. 9 (2010): 51-58. PubMed: 19939747.
7. [HMP ID 0005](#) (*Achromobacter xylosoxidans*, strain C54)

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