



# *Helicobacter bilis* Fox et al.

51630™

## Description

**Strain designation:** MIT Hb1

**Deposited As:** *Helicobacter bilis* Fox et al.

**Type strain:** Yes

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## Storage Conditions

**Storage conditions:** -80°C or colder

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## Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

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## BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always

used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

**Medium:**

ATCC Medium 1705: Brucella Agar/Broth w/ 5% Defibrinated Sheep Blood

**Temperature:** 37°C**Atmosphere:** Microaerophilic: 3-5% O<sub>2</sub>, 10% CO<sub>2</sub>

## Handling Procedures

1. This organism is shipped frozen in dry ice. Just prior to use, thaw vial in water at approximately 37°C. When thawed, a drop of the suspension may be used to do an immediate wet mount to observe the unique morphology of this organism and verify its viability by checking for motility.
2. Aseptically transfer the entire thawed suspension into a fresh #1705 broth (3-5 mL). Mix well. This suspension can now be used to inoculate agar slant(s), plate(s), or the preferred biphasic culture. Two #1705 plates should be

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inoculated, one for microaerophilic growth and the second for aerobic growth. No growth should occur on the plate incubated aerobically.

3. To obtain a biphasic culture, add 0.4 mL of the suspension to a #1705 slant. The resulting pool at the bottom of the slant is where the best, most rapid growth will occur. Add 0.1 mL of the suspension to a #1705 plate and streak for isolation.
4. Incubate at 37°C under microaerophilic conditions using an anaerobe jar with an active catalyst and a microaerophilic gas generator pack, or other acceptable method, to obtain microaerophilic conditions. Incubate slant with cap loose.
5. Within 2-3 days of incubation, good growth should be obtained in the broth pool at the bottom of the slant. Additional incubation may be required for colonies to appear on the plate. Further subcultures can be made using broth pool as the inoculum source.

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## Notes

For best growth, pre-reduce all media overnight; recommend use of Anoxomat or an anaerobe jar with an active catalyst and a microaerophilic gas generator pack, or other acceptable method, to obtain microaerophilic conditions for reducing and incubation.

This is a slow growing organism that requires moist conditions for best growth. Growth at the broth/agar interface of the biphasic slant should occur within 7 days, but little turbidity will be seen. To observe growth, examine a wet mount of the broth under phase microscopy.

The cells do not Gram stain well using traditional procedures. To obtain the best results, use a basic fuchsin counterstain in place of the safranin.

Once good growth is obtained, transfer or freeze the culture. Adding an equal

amount of 20% sterile glycerol to pooled broth from several biphasic slants, followed by freezing in liquid nitrogen or “ultra-low temperature” freezer is recommended.

Additional information on this culture is available on the ATCC® web site at [www.atcc.org](http://www.atcc.org).

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### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Helicobacter bilis* Fox et al. (ATCC 51630)

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### **References**

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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### **Revision**

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