

Helicobacter pylori, Strain Hp H-43

Catalog No. NR-43668

Product Description: *Helicobacter pylori* (*H. pylori*), strain Hp H-43 was isolated from gastric biopsy homogenate of a patient with a duodenal ulcer in Ohio, USA.

Lot¹: 64136563

Manufacturing Date: 11APR2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Biochemical characterization Catalase Oxidase Urease Nitrate reduction H ₂ S (lead acetate paper) Hippurate hydrolysis Growth with 5% CO ₂ Growth at 25°C Growth at 37°C Growth at 42°C Brucella albimi + 0.16% agar (growth control) Brucella albimi + 0.16% agar with 1% glycine Brucella albimi + 0.16% agar with 3.5% NaCl	Gram-negative rods Report results Report results Positive Positive Positive Negative Report results Negative Growth No growth Growth Report results Growth No growth No growth	Gram-negative rods Circular, low convex, entire, translucent and gray (Figure 1) Motile Positive Positive Positive Negative Positive Negative Growth No growth Growth Growth Growth Growth No growth ³ No growth ⁴
Antibiotic Susceptibility Profile BD BBL™ Sensi-Disc™ susceptibility test discs Metronidazole (80 µg) ⁵ Nalidixic acid (30 µg) ⁶	Report results Report results	35 mm 8 mm
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1380 base pairs)	≥ 99% sequence identity to <i>H. pylori</i> , strain Hp H-43 (GenBank: AK0001000011.1)	99.9% sequence identity to <i>H. pylori</i> , strain Hp H-43 (GenBank: AK0001000011.1)
Confirmation of <i>H. pylori</i> by PCR Amplification of Extracted DNA Positive control (16S ribosomal RNA gene) Negative control (<i>H. acinonychis</i>) <i>ureA</i> <i>ssaA</i>	Amplicon present No amplicon present Amplicon present Amplicon present	Amplicon present No amplicon present Amplicon present Amplicon present
Purity (post-freeze) Microaerophilic growth ⁷ Aerobic growth ^{8,9}	Growth consistent with expected colony morphology Growth consistent with expected colony morphology	Growth consistent with expected colony morphology Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-43668 was produced by inoculation of the deposited material into Brucella broth. Broth inoculum was added to Columbia agar with 7% defibrinated horse blood, 5 µg/mL trimethoprim, 5 µg/mL vancomycin, 10 µg/mL cefsulodin and 2.5 µg/mL amphotericin B. The inoculated agar and broth were each grown for 3 days at 37°C in a microaerophilic atmosphere (~ 6-16% O₂ and 2-10% CO₂). Colonies from the Columbia agar culture were suspended into the Brucella broth growth, and this biphasic culture was added to Columbia agar with 7% defibrinated horse blood, 5 µg/mL trimethoprim, 5 µg/mL vancomycin, 10 µg/mL cefsulodin and 2.5 µg/mL amphotericin B kolles, which were grown for 4 days 37°C in a microaerophilic atmosphere to produce this lot.

²7 days on Columbia agar with 7% defibrinated horse blood, 5 µg/mL trimethoprim, 5 µg/mL vancomycin, 10 µg/mL cefsulodin and 2.5 µg/mL amphotericin B at 37°C in a microaerophilic atmosphere

- ³Specifications for these tests were obtained from Bergey's Manual® of Systematic Bacteriology, 2nd ed., Volume 2, Part C, which indicates that growth may occur in up to 17% of strains.
- ⁴Specifications for these tests were obtained from Bergey's Manual® of Systematic Bacteriology, 2nd ed., Volume 2, Part C, which indicates that growth may occur in 20% to 43% of strains.
- ⁵Test performed using metronidazole 80 µg (MET-80, BBI™ catalog no. 231605)
- ⁶Test performed using nalidixic acid 30 µg (NA-30, BBL™ catalog no. 231311)
- ⁷Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in a microaerophilic atmosphere (~ 6-16% O₂ and 2-10% CO₂).
- ⁸Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere with 5% CO₂.
- ⁹*H. pylori* is known to show weak growth under aerobic conditions (Bury-Moné, S., et al. "Is *Helicobacter pylori* a True Microaerophile?" *Helicobacter* 11 (2006): 296-303. PubMed: 16882333.).

Figure 1: Colony Morphology



Date: 06 SEP 2016

Signature: 
BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.
You are authorized to use this product for research use only. It is not intended for human use.

