

Helicobacter pylori, Strain Hp H-24

Catalog No. NR-43660

Product Description: *Helicobacter pylori* (*H. pylori*), strain Hp H-24 was isolated from gastric biopsy homogenate of a patient with a gastric ulcer in Ohio, USA.

Lot¹: 64136556

Manufacturing Date: 06APR2016

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 Growth ³ 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	51 mm 12 mm
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 700 base pairs)	≥ 99% sequence identity to <i>H. pylori</i> , strain Hp H-24 (GenBank: AKOG01000008.1)	100% sequence identity to <i>H. pylori</i> , strain Hp H-24 (GenBank: AKOG01000008.1)
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-43660 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 2 days 37°C in a microaerophilic atmosphere to produce this lot.

²2 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, BBL™ 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 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 (~ 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: 20 JUL 2016

Signature:

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