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SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-43737

Helicobacter pylori, Strain R056a

Catalog No. NR-43737

Product Description: *Helicobacter pylori* (*H. pylori*), strain R056a was isolated from gastric biopsy homogenate from an asymptomatic post-menopausal female patient in Alberta, Canada.

Lot[1]: 64136584 **Manufacturing Date: 11MAY2016**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology[2]	Report results	Circular, low convex, entire, smooth and gray (Figure 1)
Motility (wet mount)	Report results	Motile
Biochemical characterization		
Catalase	Positive	Positive
Oxidase	Positive	Positive
Urease	Positive	Positive
Nitrate reduction	Negative	Negative
H2S (lead acetate paper)	Report results	Positive
Hippurate hydrolysis	Negative	Negative
Growth with 5% CO_2	Growth	Growth
Growth at 25°C	No growth	No growth
Growth at 37°C	Growth	Growth
Growth at 42°C	Report results	Growth
Brucella albimi + 0.16% agar (growth control)	Growth	Growth
Brucella albimi + 0.16% agar with 1% glycine	No growth	No growth
Brucella albimi + 0.16% agar with 3.5% NaCl	No growth	No growth
Antibiotic Susceptibility Profile		
BD BBL™ Sensi-Disc™ susceptibility test discs		
Metronidazole (80 µg)[3]	Report results	54 mm
Nalidixic acid (30 µg)[4]	Report results	6 mm
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1400 base pairs)	≥ 99% sequence identity to *H. pylori,* strain R056a (GenBank: AMOY01000003)	100% sequence identity to *H. pylori,* strain R056a (GenBank: AMOY01000003.1)
Confirmation of *H. pylori* by PCR Amplification of Extracted DNA		
Positive control (16S ribosomal RNA gene)	Amplicon present	Amplicon present
Negative control (*H. acinonychis*)	No amplicon present	No amplicon present
ureA	Amplicon present	Amplicon present
ssaA	Amplicon present	Amplicon present
Purity (post-freeze)		
Microaerophilic growth[5]	Consistent with expected colony morphology	Consistent with expected colony morphology
Aerobic growth[6]	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze)[2]	Growth	Growth

[1]NR-43737 was produced by inoculation of the deposited material into Brucella broth. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood. The inoculated broth was grown for 3 days at 37°C in a microaerophilic atmosphere (~ 6-16% O_2 and 2-10% CO_2) and the inoculated agar was grown for 3 days at 37°C in an aerobic atmosphere with 5% CO_2. Colonies from the Tryptic Soy agar culture were

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www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

suspended into the Brucella broth growth, and this biphasic culture was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles, which were grown for 2 days at 37°C in an aerobic atmosphere with 5% CO_2 to produce this lot.

[2]5 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

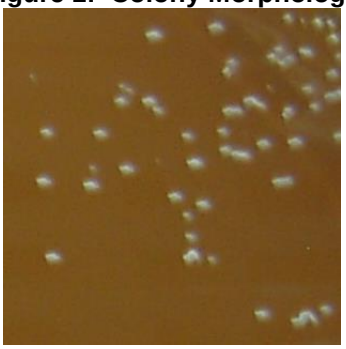
[3]Test performed using metronidazole 80 µg (MET-80, BBL™ catalog no. 231605)

[4]Test performed using nalidixic acid 30 µg (NA-30, BBL™ catalog no. 230874)

[5]Purity 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]Purity 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% CO_2.

Figure 1: Colony Morphology



Date: 05 AUG 2016 **Signature:**

BEI Resources Authentication

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E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898