b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-43639

Helicobacter pylori, Strain CPY6081

Catalog No. NR-43639

Product Description:

Helicobacter pylori (*H. pylori*), strain CPY6081 was isolated from the gastric biopsy homogenate from a gastric cancer patient in Yamaguchi Prefecture, Japan. The strain designation on the vial label is incorrect. The correct strain designation is CPY6081. NR-43639 was produced by the inoculation of the BEI Resources seed lot 63734557 into Brucella broth and grown for 3 days at 37°C in a microaerophilic atmosphere (~ 6-16% O_2 and 2-10% CO_2). 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 kolles, which were grown for 3 days at 37°C in a microaerophilic atmosphere to produce this lot.

Lot: 70053916 **Manufacturing Date: 14JUL2022**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology	Report results	Circular, convex, entire, smooth and gray
Motility (wet mount)	Report results	Motile
VITEK® MS (MALDI-TOF)	*H. pylori*	*H. pylori* (99.9%)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1400 base pairs)	≥ 99% sequence identity to *H. pylori,* strain CPY6081 (GenBank: AKNN01000009.1)	99.9% sequence identity to *H. pylori,* strain CPY6081 (GenBank: AKNN01000009.1)
Digital DNA-DNA hybridization (dDDH)[1]	> 70% dDDH value for identity to *Helicobacter pylori* type species	< 70% dDDH value for identity to any *Helicobacter pylori* type species[1,2]
Purity (post-freeze)		
Microaerophilic 7 days at 37°C on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Aerobic with 5% CO_2 7 days at 37°C on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology[3]
Viability (post-freeze)	Growth	Growth

[1]Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." Stand. Genomic Sci. 2 (2010):117-134. PubMed: 21304684. dDDH analysis was performed using the Type (Strain) Genome Server.

[2]TYGS was unable to identify a matching type strain for this item. The closest match is to *Mangrovihabitans endophyticus* CGMCC 4.7299 with a dDDH value of 69.1. This suggests NR-43639 may belong to a novel species closely related to *Mangrovihabitans endophyticus* likely in the genus *Mangrovihabitans.*

[3]*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)

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/Sonia Bjorum Brower/
Sonia Bjorum Brower 12 OCT 2023
Technical Manager or designee, ATCC Federal Solutions

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.

Support Provided by NIAID

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