Product Information Sheet for NR-43641

Helicobacter pylori, Strain CPY6271

Catalog No. NR-43641

For research use only. Not for human use.

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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Helicobacteraceae*, *Helicobacter*
Species: *Helicobacter pylori*
Strain: Hp CPY6271
Original Source: *Helicobacter pylori (H. pylori)*, strain CPY6271 was isolated by Teruko Nakazawa, Professor Emeritus, Yamaguchi University, from gastric biopsy homogenate from a gastric cancer patient in Yamaguchi Prefecture, Japan.[1,2]
Comments: *H. pylori*, strain CPY6271 is part of a genome sequencing project at the Institute for Genome Sciences at the University of Maryland.[2,3] The complete genome of *H. pylori*, strain CPY6271 has been sequenced (GenBank: AKNP00000000).

H. pylori is a microaerophilic, Gram-negative, nonsporulating, spiral-shaped and flagellated rod commonly found in the human stomach, present in about half of the world population.[4,5] It is an opportunistic pathogen linked to diseases of the upper gastrointestinal tract including: gastric and duodenal ulcers, chronic gastritis and stomach cancer.[2] *H. pylori* infections are difficult to cure and successful treatment generally requires the administration of several antibacterial agents simultaneously.[6,7]

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in Brucella broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-43641 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Media:
Tryptic Soy broth or Brain Heart Infusion broth or Brucella broth or equivalent

Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Brucella agar or 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 or equivalent

Incubation:
Temperature: 37°C
Atmosphere: Microaerophilic (~ 6-16% O_2 and 2-10% CO_2)

Propagation:
1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 2 to 3 days.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Helicobacter pylori*, Strain CPY6271, NR-43641."

Biosafety Level: 2
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Blanchard, T. G., Personal Communication.
2. Blanchard, T. G., et al. "Genome Sequences of 65 *Helicobacter pylori* Strains Isolated from Asymptomatic Individuals and Patients with Gastric Cancer, Peptic Ulcer Disease, or Gastritis." Pathog. Dis. 68 (2013): 39-43. PubMed: 23661595.
3. Blanchard, T., W. F. Fricke and S. Czinn. "Comparative Sequence Analysis of *H. pylori* Isolates from Subjects with Distinct Gastric Pathologies." Institute for Genome Sciences at the University of Maryland. <http://gscid.igs.umaryland.edu/doc/whitepapers/comparative_sequence_analysis_of_h_pylori_isolates_from_subjects_with_distinct_gastric_pathologies.pdf>
4. Cover, T. L. and M. J. Blaser. "*Helicobacter pylori* in Health and Disease." Gastroenterology 136 (2009): 1863-1873. PubMed: 19457415.
5. Tomb, J. F., et al. "The Complete Genome Sequence of the Gastric Pathogen *Helicobacter pylori*." Nature 388 (1997): 539-547. PubMed: 9252185.
6. Graham, D. Y., H. Lu and Y. Yamaoka. "Therapy for *Helicobacter pylori* Infection Can Be Improved: Sequential Therapy and Beyond." Drugs 68 (2008): 725-736. PubMed: 18416582.
7. Graham, D. Y. and L. Fischbach. "*Helicobacter pylori* Treatment in the Era of Increasing Antibiotic Resistance." Gut 59 (2010): 1143-1153. PubMed: 20525969.

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