

## HELICOBACTER PYLORI

Format	Catalogno.	Pack size	Dilution
Concentrated	GB383A,C	0.1, 1.0 mL	1:100
Prediluted	GB383AA,H,L	6.0 mL	Ready to use

### PRODUCT DESCRIPTION -

The spiral-shaped, gram-negative bacteria known as *Helicobacter pylori* is found on the surface epithelium of the stomach's mucous layer. *Helicobacter pylori* can be differentiated from other curved bacteria utilizing immunohistochemical procedures that involve an antibody specific to this type of bacterium. Peptic ulcer disease may be significantly impacted by these microorganisms, according to the available information. According to research, children who have *Helicobacter pylori* infection are more likely to develop colorectal polyps. Under a microscope with a 100X oil objective, the little spiral-shaped bacterium is readily visible.

### INTENDED USE -

The *Helicobacter pylori* [BC7] mouse monoclonal antibody is designed for in vitro diagnostic application in human tissues that have been formalin-fixed and embedded in paraffin. Its primary function is to qualitatively identify the *Helicobacter pylori* protein using immunohistochemistry (IHC). Morphological studies with appropriate controls should supplement clinical interpretation of staining or lack thereof; these studies should be reviewed by a trained pathologist in light of the patient's medical history and other diagnostic testing.

### SUMMARY AND EXPLANATION -

The spiral-shaped, gram-negative bacterium known as *Helicobacter pylori* can infect the surface epithelium of the stomach's mucous layer. These microorganisms may have a major impact in peptic ulcer disease, according to the available research. Differentiating *Helicobacter pylori* from other bacterial illnesses can be achieved by immunohistochemical methods. Use a 100X oil objective and you can see this little spiral-shaped bacterium clearly.

### PRINCIPLES OF PROCEDURE -

The immunohistochemical identification of antigens in cells and tissues involves multiple steps. The primary antibody is bound to its specific epitope in the initial stage.

An antigen can be detected using a one-, two-, or three-step technique after being labeled with a primary antibody. An enzyme-labeled polymer will attach to the main antibody in the one-step method. A secondary antibody will be introduced to the primary antibody as part of a two-step process. After that, the secondary antibody is bound by adding an enzyme-labeled polymer. There will be a linker antibody step for maximum binding, a secondary antibody step for binding to the primary antibody, and a primary antibody step in the three-step detection technique. After that, the linker antibody is bound to an enzyme-labeled polymer. A colorimetric response shows that the bound antibodies have been detected.

SOURCE - Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - BC7

ISOTYPE - IgG1

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - *Helicobacter pylori*

CELLULAR LOCALISATION - Spiral shaped bacterium

POSITIVE TISSUE CONTROL - Stomach infected with *H. pylori*

KNOWN APPLICATIONS - Immunohistochemistry  
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

- 1) Positivetissuecontrol-StomachinfectedwithH.pylori
- 2) Negativecontroltissue(internalorexternal)
- 3) Microscopeslidesandcoverslips

- 4) Staining jars or baths
- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10) Detection system
- 11) Chromogen
- 12) Wash buffer
- 13) Hematoxylin
- 14) Antibody diluents
- 15) Peroxide block
- 16) Light microscope
- 17) Mounting medium

#### LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.