



Helicobacter pylori HSP (BDI586): sc-57780

BACKGROUND

Helicobacter pylori is a bacterium that infects the mucus lining of mammalian stomach and duodenum and may cause peptic ulcers, gastritis and duodenitis. It is estimated that about 66% of the world population are infected by the bacterium, though most do not experience symptoms. This spiral-shaped Gram-negative bacterium is unique in that it can thrive in the highly acidic environment of the stomach. *Helicobacter pylori* can exist in a number of locations: in the mucus; attached to epithelial cells; or inside of vacuoles in epithelial cells, where it produces adhesins that bind to membrane-associated lipids and carbohydrates to help its adhesion to epithelial cells. *Helicobacter pylori* contains a hydrogenase enzyme and obtains energy by oxidizing molecular hydrogen produced by other intestinal bacteria. It also excretes urease in order to convert urea into ammonia and bicarbonate which neutralizes the acidic environment of the stomach. *Helicobacter pylori* HSPs (heat shock proteins) are involved in cellular stress response and intracellular chaperoning of proteins.

REFERENCES

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8. Blaser, M.J. 2005. An endangered species in the stomach. *Sci. Am.* 292: 38-45.
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RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

Helicobacter pylori HSP (BDI586) is a mouse monoclonal antibody raised against whole organism *Helicobacter pylori*.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Helicobacter pylori HSP (BDI586) is recommended for detection of *Helicobacter pylori* heat shock protein (HSP) by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with *C. jejuni*, *E. coli* (mix), *Shigella* (mix), *P. aeruginosa*, *Yersinia* and *Citrobacter* in ELISA.

Molecular Weight of precursor *Helicobacter pylori* HSP: 140 kDa.

Molecular Weight of mature *Helicobacter pylori* HSP: 95 kDa.

SELECT PRODUCT CITATIONS

1. Suyapoh, W., Tirnitz-Parker, J.E.E., Tangkawattana, S., Suttiprapa, S. and Sripa, B. 2021. Biliary migration, colonization, and pathogenesis of *O. viverrini* co-infected with CagA+ *Helicobacter pylori*. *Pathogens* 10: 1089.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.