Anti-*Helicobacter pylori* flagellin antibody, mouse monoclonal (hp-01)

Product code	64-108
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium.
Immunogen	Crude extract of *Helicobacter pylori*
Isotype	Mouse IgG1 κ
Reactivity	*Helicobacter pylori* flagellin (FlaA and FlaB) protein
Special notes	N/A
Application	1. Western blotting (1/500~1/1,000) 2. ELISA (assay dependent) Other applications have not been tested.
Background	*Helicobacter pylori* (*H. pylori)* is a gram-negative, spiral-shaped microaerophilic bacterium which is linked to the development of duodenal ulcers and stomach cancer. *H. pylori* strains produce important virulence factor. Motility is conferred to the bacteria by several sheathed flagella and is regarded as one of their principal virulence factors. Characterization of the proteins associated with the flagella components indicate the hook protein (FlgE) is 78 kDa in size while the filament consists of two flagellin proteins, FlaA and FlaB. The *H. pylori flaA* and *flaB* genes both coded for proteins with 510 and 514 amino acids and molecular masses of 53 kDa and 54 kDa, respectively. Both flagellins share considerable amino acid homology (58% identity).
Data Link	UniProt KB: P0A0S1 (FLAA/HELPT), Flagellin A, Q07911 (FLAB/HELPT) ,Flagellin B
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

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Data Images: 64-108 Anti-*Helicobacter pylori* flagellin antibody, mouse monoclonal (hp-01)

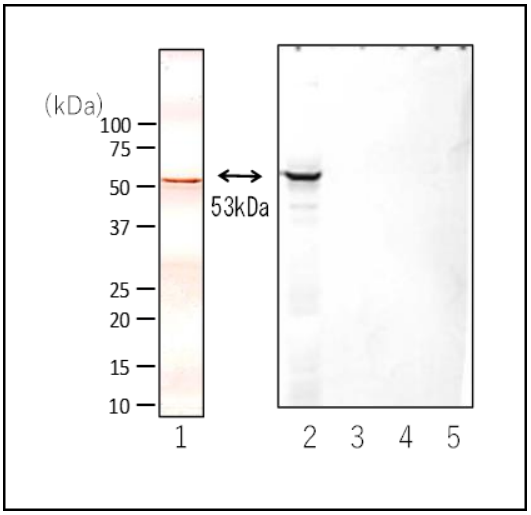

Fig.1. Detection of polypeptide of *H. pylori* by Western blotting with MAb (hp-01).

1: Crude extract of *H. pylori* (isolated strains)

2: Crude extract of *H.pylori* (JCM12093)

3: Crude extract of *Campylobacter jejuni*

4: Crude extract of *Campylobacter coli*

5: Crude extract of *Escherichia coli (E.coli)*

The hp-01 antibody was used at 1/500 dilution. The HRPO-conjugate goat anti-mouse IgG was used at 1/4,000 as the second antibody and visualized by DAB (3,3'-Diaminobenzidine). The hp-01 reacted with 53 kDa protein in the extract of *H. pylori*, but did not react with the extracts of *Campylobacter spp.* and *E. coli.* A protein band 53 kDa in size corresponds to the expected size of the flagellin.

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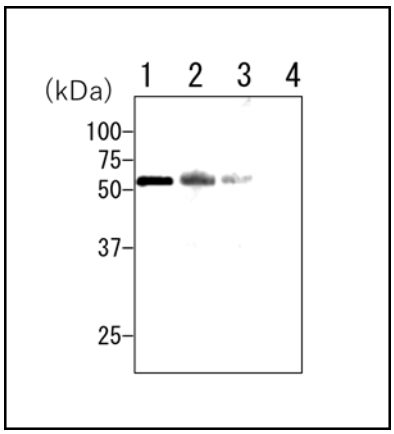

Fig.2. Detection of FlaA and FlaB protein of *H. pylori* by Western blotting with hp-01

1: Crude extract of *H.pylori* (JCM12093)

2: Recombinant FlaA protein expressed in *E. coli*

3: Recombinant FlaB protein expressed in *E. coli*

4: Negative control (BL21(DE3))

The hp-01 antibody was used at 1/500 dilution. The HRPO-conjugate goat anti-mouse IgG was used at 1/4,000 as the second antibody and visualized by Chemi-Luminescence. The hp-01 reacted with recombinant FlaA and FlaB proteins expressed in *E. coli.*

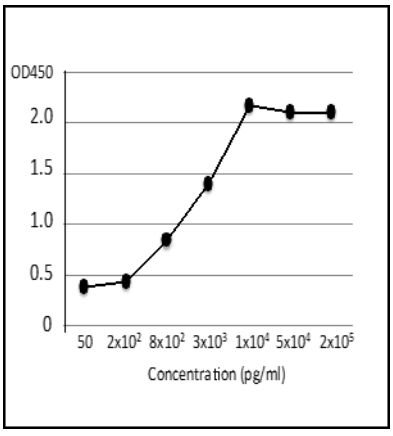

Fig.3. Titration of flagellin in the extract of *H. pylori* cells by indirect ELISA using hp-01.

The wells of plate were coated indicated amounts of the extract of *H. pylori* cells per well. After blocking with 5% skim milk, 100 µl of hp-01 at 1/500 dilution was added to the each well. The HRPO-conjugated goat anti-mouse IgG (100 µl, x2000 dilution) was added. Color was developed with OPD (orthophenylenediamine) as substrate. Optical density (OD) measured at 490nm.

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	ELISA	WB(kDa)
Helicobacter pylori (JCM12093)	+	53
Helicobacter pylori (England strain)	+	53
Helicobacter pylori (MR31 strain)	+	53
Helicobacter pylori (RD26 strain)	+	53
Campylobacter jejuni	−	−
Campylobacter coli	−	−
Campylobacter fetus	−	−
Escherichia coli	−	−

Table 1. Reactivities of MAb (hp-01)

The hp-01 reacted with a standard strain of *H. pylori* (JCM12093) and isolated strains, such as England strain, USA strains (MR31 and RD26 strains). However hp-01 did not react with other food poisoning bacteria such as *Campylobacter jejuni, Campylobacter coli* and enterotoxigenic *Escherichia coli* (ETEC).

Reference: There has been no publication using this antibody.
Please let us know when your research using this antibody is published. We will offer one vial of our antibody as compliment.

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