Anti- *Campylobacter* (Porin) antibody, mouse monoclonal (cj-01)

64-102 100 µg

Shipping and Storage: Shipped at 4℃ or -20℃. Store at -20℃.

Immunogen: Crude extract of *Campylobacter jejuni*

Form: 1 mg/ml in PBS- with 50% glycerol, filter sterilized.

Purity: IgG, affinity-purified with Protein A

Isotype: mouse IgG1

Reactivity: Reacts with *C. jejuni* and *C. coli* major outer membrane antigen (porin) of ~43 kDa.

Applications:

1. Western blotting (1/500~1/1,000 dilution)
2. ELISA (assay dependent)
3. Immunoblot (assay dependent)
4. Immunochromatography (assay dependent)

Other applications have not been tested.

Backgroud: Campylobacteriosis is an infection by the *Campylobacter* bacteria,most commonly *C. jejuni*. It is among the most common bacterial infections of human, often a foodborne illness. Many gram-negative bacteria have one or more Major Outer Membrane Proteins (MOMPs) usually function as general or specific porins that regulate the permeability of the membrane to small molecules. MOMP is an immunodominant protein and makes an attractive target antigen. *C. jejuni* has a porin as MOMP of 43 kDa, which is processed from the 45.7 kDa precursor with signal peptide of 22 amino acids.

Database: UniProtKB: P80672 (PORA_CAMJE),

Reference: There has been no publication using this antibody yet.

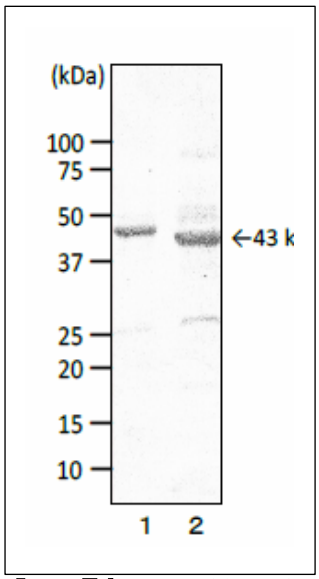

Fig.1. Western blotting of porin in extract of *Campylobacter* with MAb (cj-01).

1. Crude extract of *Campylobacter coli*
2. Crude extract of *Campylobacter jejuni*

MAb (cj-01) recognizes porins in extracts of *C. coli* and C. *jejuni* as apparent molecular mass of 44 kDa and 43 kDa protein, respectively,

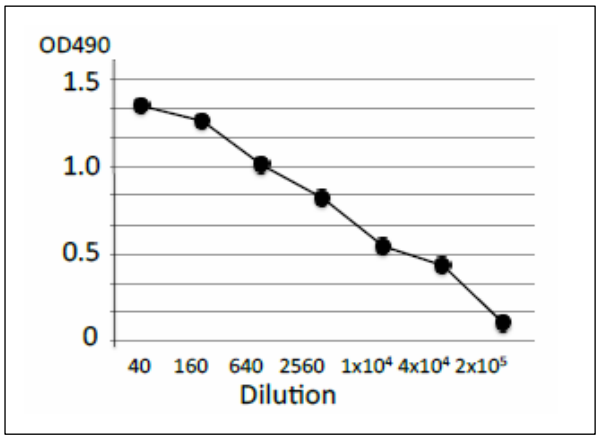

Fig.2 Titration of antibody reactivity of MAb (cj-01) by indirect ELISA, using crude extract of *Campylobacter jejuni*.

The wells of plate were coated with crude extract of *C. jejuni* (100 µl, 1 µg/ml). After blocking with 5% skim milk, 100 µl of antibody at the indicated dilution was added to the each well. HRP-conjugate goat anti-mouse IgG (100µl、x2000 dilution) was added. Color was developed with OPD (orthophenylenediamine) as substrate. Optical densities (OD) was measured at 490nm.

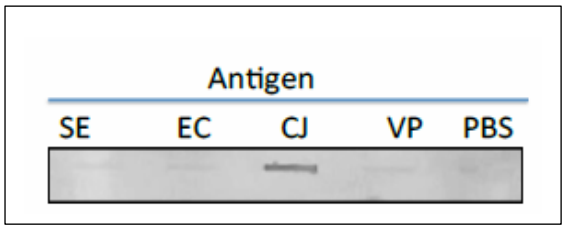

Fig.3. Test of reactivity of MAb (cj-01) with several food poisoning bacteria in slot blot test. Extract of each strain of food poisoning bacteria was coated onto 5 areas of a nitrocellulose membrane. The membrane was soaked in and reacted with MAb (cj-01). SE: *Salmonella Enteritidis*, EC: *Escherichia coli*, CJ: *C. jejuni*, VP: *Vibrio parahaemolyticus*, Mab (cj-01) specifically reacts with extract of *C. jejuni*.

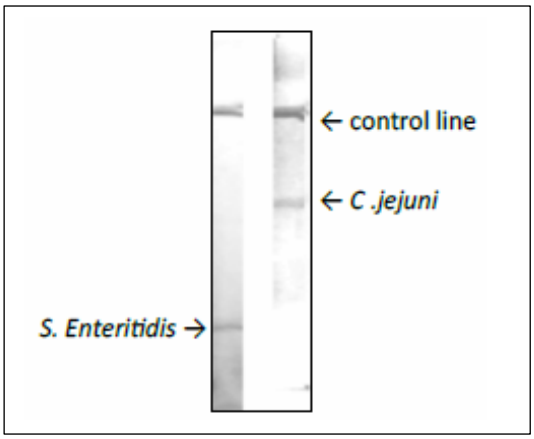

Fig.4. Reactivity of MAb (cj-01) with *Campylobacter jejuni* in immunochromatographic strip test. Rabbit anti-*C. jejuni* and goat anti-*Salmonella Enteritidis* sera containing IgG, IgA and IgM were coated onto a specific areas of the same nitrocellulose membrane as shown, while goat anti-mouse IgG was coated onto another specific area (control line) on the same membrane. MAb (cj-01) or *S. Enteritidis* monoclonal antibody conjugated with colloidal gold was mixed with extract of each strain of food poisoning bacteria in well. The strips were soaked in and reacted with the mixture fluid in the wells. Specific bands were observed in the strips reacted with

Table1. Specific reactivity of MAb (cj-01) with various food poisoning bacteria by ELISA and WB.

	ELISA	WB
Campylobacter jejuni (JCM2529)	+	43K
Other 3 isolated strains	+	
Campylobacter coli (JCM2013)	+	44K
Salmonella Enteritidis	—	—
Vibrio parahaemolyticus	—	
Escherichia coli (ETEC)	—	—
EHEC (O157:H7)	—	
Staphylococcus aureus	—	—
Clostridium perfringens	—	
Bacillus cereus	—	