Anti- *Salmonella enteritidis* LPS antibody, mouse monoclonal (se-1)

Product code	64-018
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 *Salmonella Enteritidi*s
Isotype	Mouse IgG1
Reactivity	Reacts with LPS of *Salmonella enteritidi*s and *Salmonella typhimurium.* Does not react with other gram-negative food-poisoning bacteria like *E. coli*, *V. parahaemolyticus and Campylobacter* species.
Special notes	N/A
Application	1. Western blotting （1/1000~1/2000 ） 2. ELISA （assay dependent) 3. Immunochromatography (assay dependent) Other applications have not been tested.
Background	*Salmonella enterica* subsp. *enterica* serotype Enteritidis (SE) is one of the major causative agents of human gastroenteritis. *Salmonella enterica* subsp. *enterica* is classified into over 1500 serotypes based on antigenic differences in lipopolysaccharide (LPS) (O) and flagellar (H) antigens. LPS is a major component of the outer surface of gram-negative bacteria, composed of a hydrophobic lipid A, which anchors LPS to the membrane, a core oligosaccharide region, and an O-polysaccharide polymer (O-chain) composed of oligosaccharide-repeating units. While the LPS-core regions are relatively conserved among gram-negative organisms, there is a substantial difference in the composition of the O-chain repeating units, which leads to a large antigenic diversity in O-antigens.
Data Link	N/A

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: 64-018 Anti-*Salmonella enteritidis* LPS antibody, mouse monoclonal (se-1)

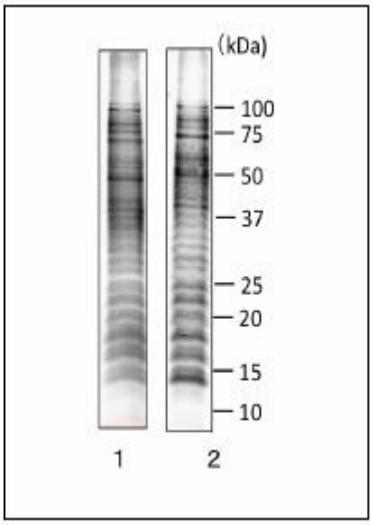

Fig.1. Western blotting of LPS from *S. Enteritidis* with MAb (se-01).

1. Crude extract of *S. Enteritidis* cells
2. Purified LPS of *S. Enteritidis* (Sigma-Aldrich),

Crude extract and purified LPS (1 μg) were loaded and separated by SDS-PAGE gel and blotted onto nitrocellulose membrane. After blocking with 5 % skim milk, membrane was reacted with MAb at 1/250 dilution. They showed similar band patterns characteristic of LPS, O-chain repeating unit. MAb (se-01) recognizes common antigenic determinants that are found in the structural components of *Salmonella* LPS.

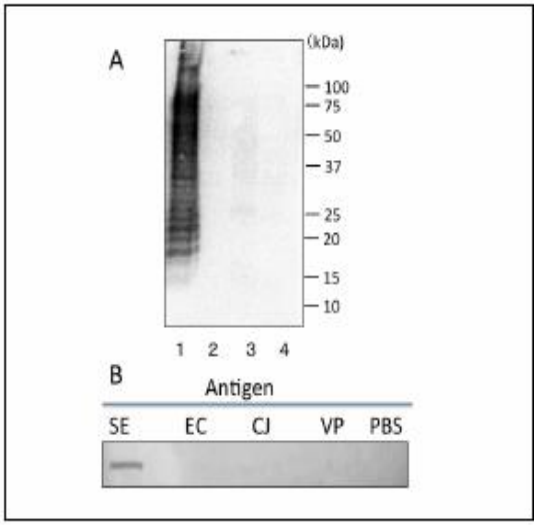

Fig 2. ReactivityDot of MAb (se-01) with several food poisoning bacteria in Western blotting (A) and slot blot test (B).

(A) 1: *S. Enteritidis,* 2: *Vibrio parahaemolyticus*, 3: *Escherichia coli* 4: *E. coli* O157:H7. MAB (ae-01) reacts only with *S. Enteritidis.*

(B) Extracts of each strain of food poisoning bacteria were coated onto 5 area of a nitrocellulose membrane. Each membrane was soaked and reacted with MAb (se-01). SE: *S. Enteritidis*, EC: *E.*

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coli, CJ: *Campylobacter jejun*i, VP: *V. parahaemolyticus*, MAb (se-01) recognizes LPS of *S. Enteritidis,* but does not react with any non-Salmonella bacteria tested.

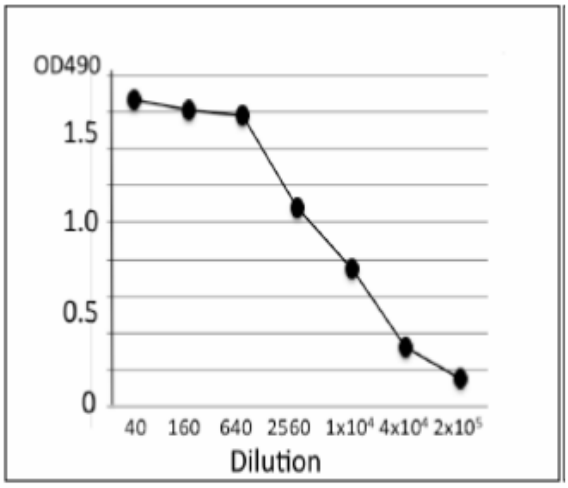

Fig.3. Titration of antibody reactivity of MAb (se-01) by indirect ELISA using crude extract of *S. Enteritidis*

The wells of plate were coated with crude extract of *S. Enteritidis* (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 orthophenylenediamine as substrate. Optical densities (OD) measured at 490nm.

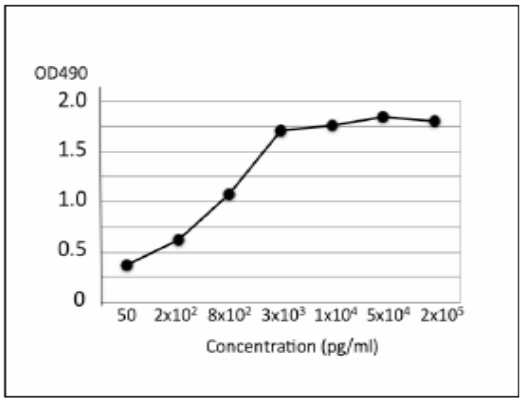

Fig4. Titration of LPS in the extract of *S. Entiritidis cells* by indirect ELISA .

ELISA plate was coated with indicated amounts of the extract of *S. Enteriditis* cells . MAB (se-01) was used at 1/500 dilution. ELISA was performed as described in Fig.3

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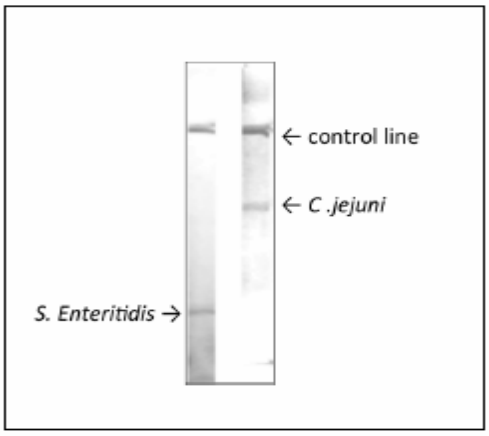

Fig.5　Immunochromatography with MAb (se-01)

Goat anti-*S.Enteritidis* serum and rabbit anti-*Campylobacter jejuni* serum were coated onto a specific upper area and under area, respectively, of the same nitrocellulose membrane, while goat anti-mouse IgG was coated onto another specific area (control line) on the same membrane. MAb (se-01) or *C. jejuni* MAb conjugated with colloidal gold were mixed with extract of each food poisoning bacteria in well. The strips were soaked and reacted with the mixture.

Specific reactivity was shown in the well containing *S. Enteritideis* (left strip) and *C. jujen*i (right strip).

	ELISA	WB
Salmonella Enteritidis (ATCC13076)	+	LPS
Other 18 isolated strains	+	+
Salmonella Typhimurium	+	
Campylobacter jejuni/coli	−	−
Vibrio parahaemolyticus	−	−
Escherichia coli (ETEC)	−	−
EHEC (0157:H7)	−	−
Staphylococcus aureus	−	
Clostridium perfringens	−	
Bacillus cereus	−	
LPS from *S. Enteritidis**	+	LPS
Purified LPS (from *S. Enteritidis*)	+	LPS

*Sigma-Aldrich, Inc.

Table 1. Reactivity of MAb (se-01) with various food poisoning bacteria.

Reference: There has been no publication using this antibody.

Please let us know when your research using this antibody is published so that we can cite the publication in this datasheet. We will offer one vial of our antibody as compliment.

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