Anti- *Bacillus cereus* phospholipase C (PC-PLC) antibody, mouse monoclonal (bc-01)

Product code	64-060
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgM fraction with protein A from hybridoma cell culture medium.
Immunogen	Culture supernatant of *B. cereus*
Isotype	Mouse IgM
Reactivity	phosphatidylcholine phospholipase C (PC-PLC) of *Bacillus cereus*.
Special notes	N/A
Application	1. Western blotting (1/500~1/1,000) 2. ELISA (assay dependent) This antibody is useful for detecting food poisoning *B. cereus*
Background	*Bacillus cereus* is one of the major causative agents of food poisoning and produces various toxins and enzymes. *B. cereus* produces two kinds of phospholipase C (PLC), phosphatidylcholine-PLC (PC-PLC) and phosphatidylinositol-PLC (PI-PLC). The PC–PLC from *B. cereus*, a monomeric protein containing 245 amino-acid residues (28.5 kDa), This 245-aa Zn^{+2} metalloprotein provides the bacteria with a lecithinase activity but not a hemolytic activity.
Data Link	UniProtKB P09598 (PHLC_BACCE)

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: 64-060 Anti- *Bacillus cereus* phospholipase C (PC-PLC) antibody, mouse monoclonal (bc-01)

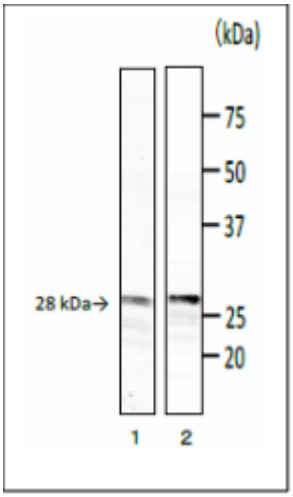

Fig.1. Detection of phospholipase C (PC-PLC) of *B. cereus* by Western blotting with monoclonal antibody (bc-01).

1. Culture medium of *B. cereus*
2. PC-PLC purified from *B. cereus*

The antibody was used at 1/1,000 dilution.

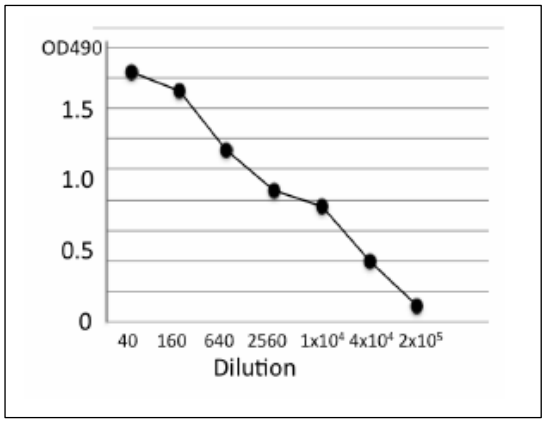

Fig.2. Titration of antibody reactivity of the MAb (bc-01) by indirect ELISA using crude extract of *B. cereus*

The wells of plate were coated with crude extract of *B. cereus* (100 µl, 1 µg/ml). After blocking with 5% skim milk, 100 µl of antibody at the indicated dilutions was added to the each well. HRP-conjugated goat anti-mouse IgM (100µl, x 2000 dilution) was added.

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Fig.3. Titration of PLC in the extract of *B. cereus* cells by indirect ELISA using MAb (bc-01).

ELISA plate is coated with indicated amounts of the extract of *B. cereus* cells per well. MAb (bc-01) was used at 1/ 500 dilution. ELISA was performed as in Fig. 2.

	ELISA	WB
Bacillus cereus (NBRC15306)	+	28K
Other 5 isolated strains	+	
Bacillus subtitis	−	
Staphylococcus aureus	−	
Salmonella Enteritidis	−	−
Escherichia coli (ETEC)	−	−
E. coli 0157:H7 (EHEC)	−	
Purified PLC (from *B.cereus*)	+	28K

PLC : Phpspholipase C

Table 1 Reactivities of MAb (bc-01) with various food poisoning bacteria

MAb (bc-01) reacts with a standard strain of *B. cereus* (NBRC15306), 5 isolated strains and both PLC of *B. cereus* and α-toxin of *C. perfringens*. Antibody reacts with *C. perfringens,* but not with any other food poisoning bacteria. Protein bands, 28 kDa and 43kDa sizes correspond to the expected sizes of the *B. cereus* PLC and *C. peringens* α-toxin, respectively.

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