SANTA CRUZ BIOTECHNOLOGY, INC.

MBL-C (H-50): sc-25615

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mannose-binding lectin protein C (MBL-C), also known as mannose-binding protein C; mannose-binding lectin 2, soluble (opsonic defect); mannan-binding lectin; mannan-binding protein; and soluble mannose-binding lectin, initiates the lectin branch of the innate immune response by binding to the surface of potentially pathogenic microorganisms and initiating complement fixation through an N-terminal collagen-like domain. MBL-C is a key component in immune response due to its ability to directly trigger neutralization of invading microorganisms by an Ab-independent mechanism. It binds to sugars on the surface of bacterial, fungal and parasitic cells through C-terminal, Ca^{2+}-dependent carbohydrate-recognition domains. Mutations of human MBL are associated with immunodeficiency resulting from a reduction in the ability of the mutant MBL to initiate complement fixation. In human, two types of MBL-associated serine proteases (MASP-1 and MASP-2) and a truncated form of MASP-2, designated small MBL-associated protein (sMAP) or MAp19, complex with MBL to activate the lectin pathway of the complement system. Activated MASPs subsequently cleave and activate downstream components of the complement pathway.

CHROMOSOMAL LOCATION

Genetic locus: MBL2 (human) mapping to 10q21.1.

SOURCE

MBL-C (H-50) is a rabbit polyclonal antibody raised against amino acids 101-150 of MBL-C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

MBL-C (H-50) is recommended for detection of MBL-C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MBL-C siRNA (h): sc-35869, MBL-C shRNA Plasmid (h): sc-35869-SH and MBL-C shRNA (h) Lentiviral Particles: sc-35869-V.

Molecular Weight of MBL-C subunit: 32 kDa.

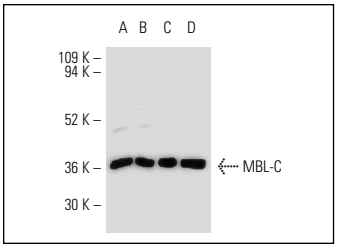
Molecular Weight of MBL-C trimer: 96 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, CCRF-CEM cell lysate: sc-2225 or Hep G2 cell lysate: sc-2227.

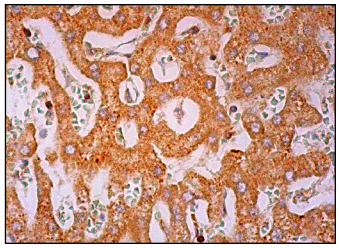
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



MBL-C (H-50): sc-25615. Western blot analysis of MBL-C expression in Hep G2 (**A**), KNRK (**B**) and DU 145 (**C**) whole cell lysates and rat kidney tissue extract (**D**).



MBL-C (H-50): sc-25615. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Koide, T., et al. 2006. Specific recognition of the collagen triple helix by chaperone HSP 47. II. The HSP 47-binding structural motif in collagens and related proteins. J. Biol. Chem. 281: 11177-11185.

RESEARCH USE

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

PROTOCOLS

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