

MBL-C (N-14): sc-17908

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, Ca²⁺-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.

REFERENCES

1. Heise, C., Nicholls, J., Leamy, E. and Wallis, R. 2000. Impaired secretion of rat mannose-binding protein resulting from mutations in the collagen-like domain. *J. Immunol.* 165: 1403-1409.
2. Matsushita, M., Thiel, S., Jensenius, J.C., Terai, I. and Fujita, T. 2000. Proteolytic activities of two types of mannose-binding lectin-associated serine protease. *J. Immunol.* 165: 2637-2642.
3. Chen, C.B. and Wallis, R. 2001. Stoichiometry of complexes between mannose-binding protein and its associated serine proteases: defining functional units for complement activation. *J. Biol. Chem.* 276: 25894-25902.

CHROMOSOMAL LOCATION

Genetic locus: MBL2 (human) mapping to 10q21.1; Mbl2 (mouse) mapping to 19 C1.

SOURCE

MBL-C (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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.

Blocking peptide available for competition studies, sc-17908 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (N-14) is recommended for detection of MBL-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (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 siRNA (m): sc-35870, MBL-C shRNA Plasmid (h): sc-35869-SH, MBL-C shRNA Plasmid (m): sc-35870-SH, MBL-C shRNA (h) Lentiviral Particles: sc-35869-V and MBL-C shRNA (m) Lentiviral Particles: sc-35870-V.

Molecular Weight of MBL-C subunit: 32 kDa.

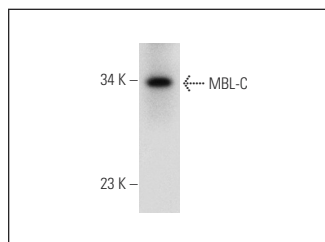
Molecular Weight of MBL-C trimer: 96 kDa.

Positive Controls: mouse kidney extract: sc-2255, rat kidney extract: sc-2394 or mouse liver extract: sc-2256.

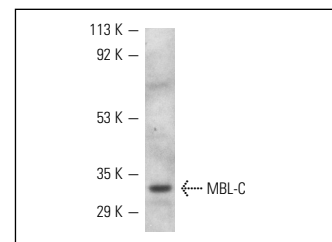
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MBL-C (N-14): sc-17908. Western blot analysis of MBL-C expression in mouse liver tissue extract.



MBL-C (N-14): sc-17908. Western blot analysis of MBL-C expression in mouse kidney extract.

RESEARCH USE

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

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Try **MBL-C (3B6): sc-80595**, our highly recommended monoclonal alternative to MBL-C (N-14).