Mouse MBL-2 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2208X
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MBL-2 in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with recombinant mouse MBL-1 and recombinant human MBL is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MBL-2 (Catalog # 2208-MB) Glu19-Asp244 Accession # Q3UEK1
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Mannan binding lectin (MBL) belongs to the collectin family of innate immune defense proteins, which binds to an array of carbohydrate patterns on pathogen surfaces (1, 2). Collectin family members share common structural features: a cysteine rich amino-terminal domain, a collagen-like region, an α-helical coiled-coil neck domain and a carboxy terminal C-type (Ca^{++}-dependent) lectin or carbohydrate recognition domain (CRD). MBL homotrimerizes to form a structural unit joined by N-terminal disulfide bridges. These homotrimers further associates into oligomeric structures of up to 6 units. Whereas two forms of MBL proteins (MBL-1, also known as S-MBP or MBL-A and MBL-2, also known as L-MBP or MBL-C) exist in rodents and other animals, only one functional MBL protein is present in humans. Mouse MBL-2 shares about 52% and 60% amino acid sequence identity with mouse MBL-1 and human MBL, respectively.

In mouse, MBL-1 and MBL-2 are the only collectins that can activate complement via the lectin complement pathway (1, 2). Serum oligomeric MBL associates with MBL-associated serine protease (MASP) proenzymes. The MBL-MASP proenzyme complex preferentially interact with sugar patterns containing mannose, glucose, L-fucose, or N-acetyl-glucosamine present at a terminal nonreducing postion on the cell surface of various pathogens and certain tumor cells. This interaction induces pro-enzyme activation and the triggering of the complement cascade, resulting in opsonization and pathogen removal via humoral and cellular immune responses. MBL does not recognize self-components or glycoproteins from other higher animals due to the presence of terminal sialic acid or galactose that interrupts the repeating carbohydrate structures (3). A number of membrane receptors for MBL, including C1q phagocytic receptor (C1qRp), calreticulin (also known as C1qR), and CR1 (CD35), have been described. Interactions with these receptors may also be important in stimulating phagocytosis (1, 2).

Mouse MBL-1 and MBL-2 are produced primarily in the liver and are secreted into the blood stream. In addition, mouse MBL-1 is also expressed in lung, kidney, and testis while MBL-2 is expressed in kidney, thymus, and small intestine (1, 4, 5).

PRODUCT SPECIFIC NOTICES

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