Human MD-1 Alexa Fluor® 532-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 153014

Catalog Number: FAB925X

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MD-1 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse MD-1 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 153014
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human MD-1 Gly21-Ser162 Accession # O95711
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.*

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

MD-1 is a secreted glycoprotein that is associated with RP105 and is required for efficient RP105 cell surface expression and function (1-4). RP105 is a type I transmembrane glycoprotein with extracellular leucine-rich repeats (LRR) typically found in Toll-like receptor (TLR) family members. However, RP105 has a short cytoplasmic tail and lacks the Toll-IL-1 R (TIR) domain that defines the IL-1 R/TLR superfamily (1-3). RP105 plays an important role in B-cell activation by bacterial lipopolysaccharide (LPS). It is expressed primarily on mature B cells, dendritic cells and macrophages (3).

Human MD-1 cDNA encodes a 162 amino acid (aa) precursor protein with a putative 19 aa signal peptide and two potential N-linked glycosylation sites. It shares 38% and 66% amino acid sequence identity with chicken and mouse MD-1 respectively (1, 2). MD-1 is mainly expressed in spleen, and also detectable in liver, brain, thymus, and kidney. The cell surface RP105/MD-1 complex, in conjunction with TLR4, mediates the innate immune response to LPS in B cells. Activation of the RP105 complex has been shown to protect against apoptosis, induce B-cell proliferation and upregulate B7.2, a co-stimulatory molecule (4, 5). Since MD-1 is also expressed in liver and brain where RP105 is absent, MD-1 may also be associated with other LRR-containing molecules, or have additional functions outside the immune system (5).

PRODUCT SPECIFIC NOTICES

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