

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD1d in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) CD1a, rhCD1b, rhCD1c, rhCD1e, recombinant mouse (rm) CD1d1, and rmCD1d2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 703335
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD1d Glu20-Ser301 (predicted) Accession # P15813
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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

CD1d is a 48 kDa transmembrane glycoprotein in the CD1 family of glycolipid antigen-presenting MHC-like molecules. Mature human CD1d consists of a 282 amino acid (aa) extracellular domain (ECD) with one Ig-like domain, a 21 aa transmembrane segment, and a 13 aa cytoplasmic tail. Within aa 19-300 (the ECD), human CD1d shares 65% and 68% aa sequence identity with mouse and rat CD1d, respectively. Complexes of CD1d with β2-microglobulin and endogenous glycolipids are constitutively expressed on antigen presenting cells, cortical thymocytes, liver sinusoidal endothelial cells, Kupffer cells, and hepatocytes (1). CD1d-presented glycolipids are recognized by canonical NKT cells that utilize an invariant mouse Va14-Ja18 chain in their T cell receptor (Va24-Ja18 in human) (2, 3). The interaction with glycolipid-loaded CD1d is critical for NKT cell development and induces their rapid secretion of both Th1 and Th2 type cytokines (3-6). In humans, infection with HSV-1 suppresses NKT cell activation by blocking the intracellular cycling of CD1d in antigen presenting cells (7).

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