

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD84/SLAMF5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse CD84 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 273508
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD84/SLAMF5 Lys22-Arg220 Accession # Q9UIB8.1
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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

The CD2 family receptors are type I transmembrane glycosylated proteins belonging to the immunoglobulin (Ig) superfamily. They are characterized by an extracellular region containing an N-terminal variable (V) Ig domain lacking disulfide bonds and a truncated Ig constant 2 (C2) domain with two disulfide bonds (1). CD84, also known as Ly-9B, is a member of the CD150/SLAM (signaling lymphocyte activation molecule) subfamily of the CD2 family and is designated SLAMF5 (2). The SLAM family, comprising at least nine members, is defined by the presence of at least two immunoreceptor tyrosine-based switch motifs (ITSM) in the intracellular region. The ITSM motifs interact with the SH2 (Src homology 2) domain of cytoplasmic adaptor molecules SAP (SLAM-associated protein) and EAT-2 (EWS/Flii-activated transcript 2) to transduce SLAM family receptor-mediated signals (2). SLAM family receptors are thought to mediate cell adhesion in the immune synapse between T cells and antigen-presenting cells to modulate immune responses. Human CD84 cDNA encodes a 328 amino acid residue (aa) precursor protein with a 21 aa signal peptide and a 199 aa extracellular domain (3). It is expressed on B and T cells, monocytes and platelets (3, 4). CD84 is a self-ligand. The homotypic CD84-CD84 interaction requires only the first N-terminal Ig V domain (4). In T cells, CD84 has been found to act as a co-stimulatory molecule, enhancing anti-CD3 induced IFN-γ production in lymphocytes and increasing anti-CD3 induced proliferation in PHA T cells blasts (4, 5). In B cells, CD84 is differentially expressed, with the CD84^{hi} B cells representing a subset of memory B cells (6). While ligation of CD84 in the memory B cells leads to the recruitment of SAP and EAT-2 the exact role CD84 has in memory B cell functions remains to be determined. The exact role played by CD84 in B cells functions remains to be determined. Human and mouse CD84 share approximately 57% aa sequence identity.

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