Human CD84/SLAMF5 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1855

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD84/SLAMF5 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD84/SLAMF5 Lys22-Arg220 Accession # Q9UIB8.1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human CD84/SLAMF5 (Catalog # 1855-CD)
Flow Cytometry	0.25 µg/10^6 cells	Daudi human Burkitt's lymphoma cell line
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 extracelllular 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 domai (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.

References:

1. Tangye, S.G. *et al.* (2000) Semin. Immunol. **12**:149.
2. Engel, P. *et al.* (2003) Nature Reviews Immunol. **3**:813.
3. de la Fuente, M.A. *et al.* (1997) Blood. **90**:2398.
4. Martin, M. *et al.* (2000) **167**:3668.
5. Tangye, S.G. *et al.* (2003) J. Immunol. **171**:2485.
6. Tangye, S.G. *et al.* (2002) Eur. J. Immunol. **32**:1640.

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