10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CD81 Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17719

Product Information

Application	WB, IHC-P
Primary Accession	P60033
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	25809
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	975
Alias Symbol	CD81
Other Names	CD81, CD81 antigen, CD81 molecule, CVID6, S5.7, TAPA1, TAPA-1, Tetraspanin-28, TSPAN28, Tspan-28
Target/Specificity	This Polyclonal antibody is directed against human CD81 protein. The product was purified from serum by protein A chromatography. Expect reactivity with human CD81. Cross-reactivity with CD81 from other sources has not been determined.
Reconstitution & Storage	Affinity purified
Precautions	Anti-CD81 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD81 {ECO:0000303|PubMed:8766544, ECO:0000312|HGNC:HGNC:1701}
Function	Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling. Essential for trafficking and compartmentalization of CD19 receptor on the surface of activated B cells (PubMed:16449649, PubMed:20237408, PubMed:27881302). Upon initial encounter with microbial pathogens, enables the assembly of CD19-CR2/CD21 and B cell receptor (BCR) complexes at signaling TERMs, lowering the threshold dose of antigen required to trigger B cell clonal expansion and antibody production (PubMed:15161911, PubMed:20237408). In T cells, facilitates the localization of CD247/CD3 zeta at antigen-induced synapses

	with B cells, providing for costimulation and polarization toward T helper type 2 phenotype (PubMed:22307619, PubMed:23858057, PubMed:8766544). Present in MHC class II compartments, may also play a role in antigen presentation (PubMed:8409388, PubMed:8766544). Can act both as positive and negative regulator of homotypic or heterotypic cell-cell fusion processes. Positively regulates sperm-egg fusion and may be involved in acrosome reaction (By similarity). In myoblasts, associates with CD9 and PTGFRN and inhibits myotube fusion during muscle regeneration (By similarity). In macrophages, associates with CD9 and beta-1 and beta-2 integrins, and prevents macrophage fusion into multinucleated giant cells specialized in ingesting complement-opsonized large particles (PubMed:12796480). Also prevents the fusion of mononuclear cell progenitors into osteoclasts in charge of bone resorption (By similarity). May regulate the compartmentalization of enzymatic activities. In T cells, defines the subcellular localization of dNTPase SAMHD1 and permits its degradation by the proteasome, thereby controlling intracellular dNTP levels (PubMed:28871089). Also involved in cell adhesion and motility. Positively regulates integrin-mediated adhesion of macrophages, particularly relevant for the inflammatory response in the lung (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Note=Associates with CLDN1 and the CLDN1-CD81 complex localizes to the basolateral cell membrane
Tissue Location	Expressed on B cells (at protein level) (PubMed:20237408). Expressed in hepatocytes (at protein level) (PubMed:12483205). Expressed in monocytes/macrophages (at protein level) (PubMed:12796480). Expressed on both naive and memory CD4- positive T cells (at protein level) (PubMed:22307619)

Citations

- Camel-Milk-Derived Extracellular Vesicles Mitigate High-Fat-Diet-Induced Obesity by Enhancing Thermogenesis and Modulating Lipid Metabolism in Mice

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