

Anti-CD81 / TAPA-1 Antibody
Mouse Monoclonal Antibody
Catalog # AH13650**Specification****Anti-CD81 / TAPA-1 Antibody - Product Information**

Application	WB, IHC-P, IF, FC
Primary Accession	P60033
Other Accession	54457
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	25809

Anti-CD81 / TAPA-1 Antibody - Additional Information**Gene ID** 975**Other Names**

CD81; Target of the antiproliferative antibody 1 (TAPA-1); Tetraspanin-28; Tspan-28

Application Note

WB~~1:1000
IHC-P~~N/A
IF~~1:50~200
FC~~1:10~50

Format

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

Anti-CD81 / TAPA-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-CD81 / TAPA-1 Antibody - 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](http://www.uniprot.org/citations/16449649), PubMed: [20237408](http://www.uniprot.org/citations/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

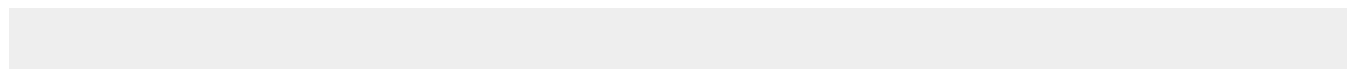
Expressed on B cells (at protein level) (PubMed:20237408). Expressed in hepatocytes (at protein level) (PubMed:12483205). Expressed in monocytes/macrophages (at protein level) (PubMed:12796480). Expressed on both naive and memory CD4- positive T cells (at protein level) (PubMed:22307619)

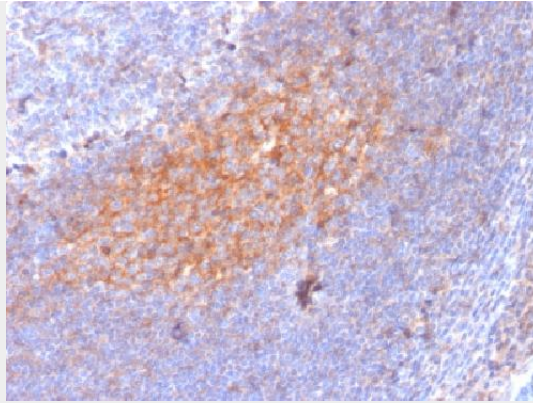
Anti-CD81 / TAPA-1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

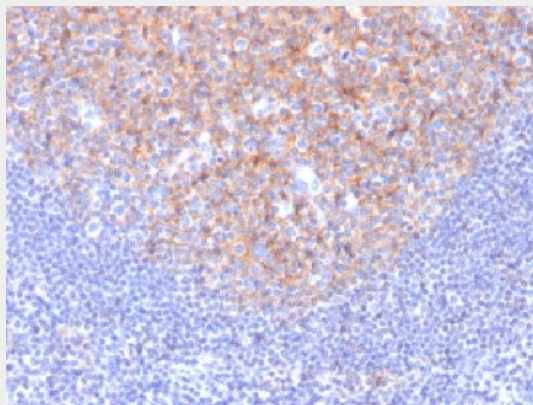
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CD81 / TAPA-1 Antibody - Images





Formalin-fixed, paraffin-embedded human Lymph Node stained with CD81 Mouse Monoclonal Antibody (1.3.3.22).



Formalin-fixed, paraffin-embedded human Tonsil stained with CD81 Mouse Monoclonal Antibody (1.3.3.22).

Anti-CD81 / TAPA-1 Antibody - Background

Recognizes a protein of 26kDa, identified as CD81 (Workshop VI; Code CD81.1)). CD81 has a very broad cellular distribution, being expressed on T- and B-lymphocytes, NK cells, thymocytes, eosinophils, fibroblasts, epithelial and endothelial cells. Neutrophils, erythrocytes and platelets are negative, while monocytes are variably positive. CD81 is a member of a family of tetraspan transmembrane proteins, including CD9, CD37, CD53, CD63, and CD82. It associates with CD19, CD21, Leu 13, and integrins on cell membrane and is involved in signal transduction in B lymphocyte development and cell adhesion. CD81 also acts as a receptor for the envelope protein E2 of chronic hepatitis C virus. Antibodies to CD81 have anti-proliferative effects on different lymphoid cell lines, particularly those derived from large cell lymphomas.