

# CD81 Rabbit mAb

Catalog # AP76845

## Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	<a href="#">P60033</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	25809

## Additional Information

Gene ID	975
Other Names	CD81
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A ICC~~N/A
Format	Liquid

## Protein Information

Name	CD81 {ECO:0000303 PubMed:8766544, ECO:0000312 HGNC:HGNC:1701}
Function	<p>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:<a href="#">16449649</a>, PubMed:<a href="#">20237408</a>, PubMed:<a href="#">27881302</a>). 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:<a href="#">15161911</a>, PubMed:<a href="#">20237408</a>). 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:<a href="#">22307619</a>, PubMed:<a href="#">23858057</a>, PubMed:<a href="#">8766544</a>). Present in MHC class II compartments, may also play a role in antigen presentation (PubMed:<a href="#">8409388</a>, PubMed:<a href="#">8766544</a>). 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:<a href="#">12796480</a>). Also prevents the fusion of mononuclear cell progenitors into osteoclasts in charge</p>

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

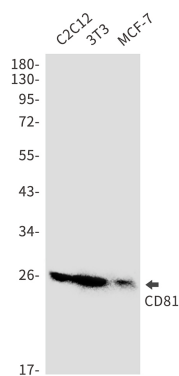
Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Note=Associates with CLDN1 and the CLDN1-CD81 complex localizes to the basolateral cell membrane

#### 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)

## Images

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