

## Anti-CD81 Antibody (4A559)

## Product Details

Ig Type:	Human IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4A559
Purification:	Affinity-chromatography

## Applications

Verified Activity:	The Binding Activity of Human CD81 with Anti-CD81 recombinant antibody Activity: Measured by its binding ability in a functional ELISA. Immobilized Human CD81 at 2 µg/mL can bind Anti-CD81 recombinant antibody. the EC50 is 4.166-5.578 ng/mL.
Application:	ELISA

## Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human CD81 Protein
Antigen Species:	Human
Gene ID:	975
Uniprot ID:	P60033
Synonyms:	CD81 molecule;TSPAN28;S5.7;CVID6;TAPA1
Biology Area:	Immunology, Stem cells

## Research Background

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. 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. 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. Present in MHC class II compartments, may also play a role in antigen presentation. 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. In myoblasts, associates with CD9 and PTGFRN and inhibits myotube fusion during muscle regeneration. 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. Also prevents the fusion of mononuclear cell progenitors into osteoclasts in charge of bone resorption. May regulate the compartmentalization of enzymatic activities. In T cells, defines the subcellular localization of dNTPase SAMHD1 and

## A DRUG SCREENING EXPERT

---

permits its degradation by the proteasome, thereby controlling intracellular dNTP levels. Also involved in cell adhesion and motility. Positively regulates integrin-mediated adhesion of macrophages, particularly relevant for the inflammatory response in the lung. (Microbial infection) Acts as a receptor for hepatitis C virus (HCV) in hepatocytes. Association with CLDN1 and the CLDN1-CD81 receptor complex is essential for HCV entry into host cell. (Microbial infection) Involved in SAMHD1-dependent restriction of HIV-1 replication. May support early replication of both R5- and X4-tropic HIV-1 viruses in T cells, likely via proteasome-dependent degradation of SAMHD1. (Microbial infection) Specifically required for Plasmodium falciparum infectivity of hepatocytes, controlling sporozoite entry into hepatocytes via the parasitophorous vacuole and subsequent parasite differentiation to exoerythrocytic forms.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481