

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD81 in Elisas.
Source	Monoclonal Rabbit IgG Clone # 2664C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	CHO-derived human CD81 protein Phe113-Ala201 Accession # P60033
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CD81, also known as TAPA-1 and Tetraspanin-28, is an approximately 25 kDa palmitoylated component of plasma membrane lipid rafts (1). It contains four transmembrane segments, two extracellular loops of 30 and 90 amino acids (aa), and three short cytoplasmic regions (2, 3). Within the large extracellular loop, human CD81 shares 90% and 84% aa sequence identity with mouse and rat CD81, respectively. CD81 associates with a wide range of membrane proteins including CD151, TfR2, LDL R, PCSK9, Glypican 3, IFITM1, IGSF8/CD316, FPRP, and complexes of CD19-CD21 (4-11). It is required for the development of CD4+CD8+ DP thymocytes (12) and hepatocyte infection by Plasmodium sporozoites (13). It also supports B cell receptor signaling (11), Hepcidin expression (5), monocyte and B cell tethering to the vascular endothelium (14), and the immunosuppressive function of Treg and MDSC (15). CD81 additionally functions as a receptor for the E2 glycoprotein of hepatitis C virus (16). The CD81-E2 interaction inhibits NK cell cytolytic activity, provides a co-stimulatory signal to T cells, and inhibits the maturation of plasmacytoid dendritic cells (17-19).

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