

## CD47 Protein, Cynomolgus/Rhesus Macaque (HEK293, Fc)

Cat. No.:	HY-P7831
Synonyms:	rRhIntegrin-associated protein/CD47, Fc; Leukocyte Surface Antigen CD47; Antigenic Surface Determinant Protein OA3; Integrin-Associated Protein; IAP; Protein MER6; CD47; MER6
Species:	Rhesus Macaque;Cynomolgus
Source:	HEK293
Accession:	F7A802/NP_001253446 (Q19-S139)
Gene ID:	704980
Molecular Weight:	Approximately 60-90 kDa due to the glycosylation.

### PROPERTIES

AA Sequence	Q L L F N K T K S V    E F T F C N D T V V    I P C F V T N M E A    Q N T T E V Y V K W K F K G R D I Y T F    D G A L N K S T A P    A N F S S A K I E V    S Q L L K G D A S L K M D K S D A V S H    T G N Y T C E V T E    L T R E G E T I I E    L K Y R V V S W F S
Biological Activity	1.10 µg/mL (100 µL/well) of immobilized recombinant Rhesus Macaque Integrin-associated protein/CD47-Fc can bind Anti-Human CD47 mAb-IgG4Fc with an ED <sub>50</sub> value of 76.1 ng/mL. 2.Measured by its binding ability in a functional ELISA. Immobilized Human SIRP alpha at 2µg/mL (100 µL/well) can bind Cynomolgus CD47. The ED <sub>50</sub> for this effect is 0.19 µg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris, 100 mM Glycine, pH 7.5.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	CD47 is a receptor for the C-terminal cell-binding domain of leukocyte surface antigen and thrombospondin. CD47 controls the increase in intracellular calcium concentration when cells adhere to the extracellular matrix and may play a role in membrane trafficking and signal transduction. The CD47 gene has broad tissue distribution and low expression on Rh erythrocytes. High expression levels of CD47 help cancer cells evade the immune system. For example, studies have found
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that high expression of CD47 is associated with poor prognosis in HCC patients. CD47 inhibition can enhance the ability of CD103+ DCs to take up tumor DNA, thereby stimulating the cGAS-STING pathway and promoting the infiltration and activation of liver natural killer cells in cancer cells. CD47 also binds to proteins including thrombospondin-1 (TSP-1), signal regulatory protein alpha (SIRPα), integrins, and protein tyrosine phosphatase substrate with SH2 domain-1 (SHPS-1). Ligand. and regulates phagocytosis of macrophages, migration of neutrophils, and activation of dendritic cells, T cells, and B cells. Some CD47 antibodies may inhibit the CD47-SIRPα axis to enhance phagocytosis of cancer cells.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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