

Recombinant Human CD47 protein, Mouse IgG2a Fc-tagged, low endotoxin

Cat. No. CD47-348H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD47 protein (Gln19-Pro139)(low endotoxin), fused to Mouse IgG2a Fc tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	121
Description	Leukocyte surface antigen CD47 is also known as Antigenic surface determinant protein OA3, Integrin-associated protein (IAP) and Protein MER6. CD47 contains 1 Ig-like V-type (immunoglobulin-like) domain. CD47 is very broadly distributed on normal adult tissues. CD47 has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins and plays an important role in memory formation and synaptic plasticity in the hippocampus by similarity. CD47 is the receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. CD47 Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation.
Form	Lyophilized from 0.22 um filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 40.8 kDa. As a result of glycosylation, the protein

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	migrates as 55-66 kDa under reducing (R) condition, and 100-130 kDa under non-reducing (NR) condition (SDS-PAGE).
Endotoxin	Less than 0.1 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CD47
Official Symbol	CD47
Synonyms	CD47; CD47 molecule; CD47 antigen (Rh related antigen, integrin associated signal transducer) , MER6; leukocyte surface antigen CD47; antigen identified by monoclonal 1D8; antigenic surface determinant protein OA3; CD47 glycoprotein; IAP; integrin associated protein; OA3; Rh related antigen; Rh-related antigen; integrin-associated protein; integrin-associated signal transducer; CD47 antigen (Rh-related antigen, integrin-associated signal transducer); MER6
Gene ID	961

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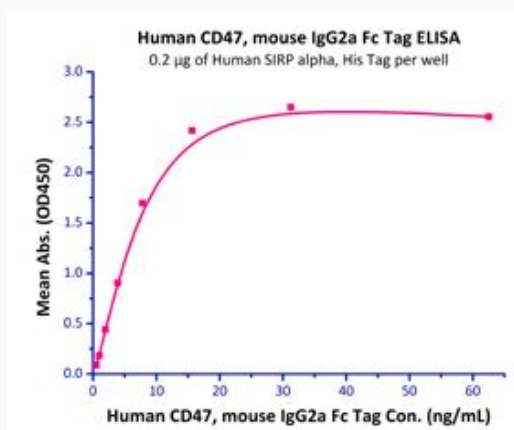
mRNA Refseq NM_001777

Protein Refseq NP_001768

MIM 601028

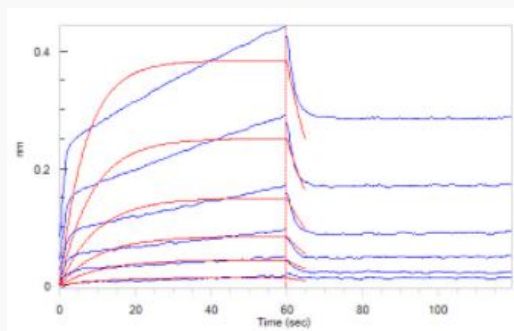
UniProt ID Q08722

Bioactivity-ELISA of CD47-348H



Immobilized Human SIRP alpha, His Tag (HPLC-verified) at 2 µg/mL (100 µL/well) can bind Human CD47, Mouse IgG2a Fc Tag, low endotoxin with a linear range of 0.5-8 ng/mL (QC tested).

Bioactivity-BLI of CD47-348H



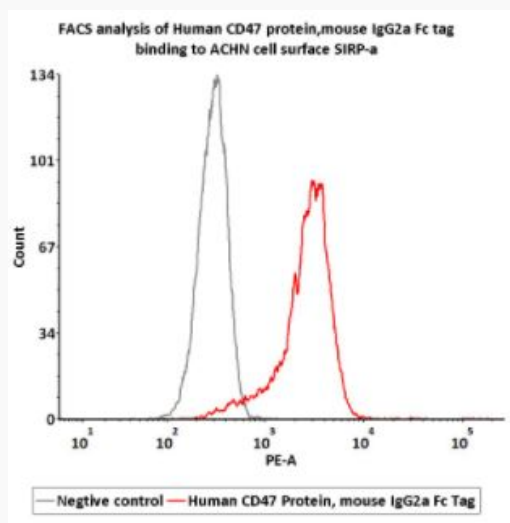
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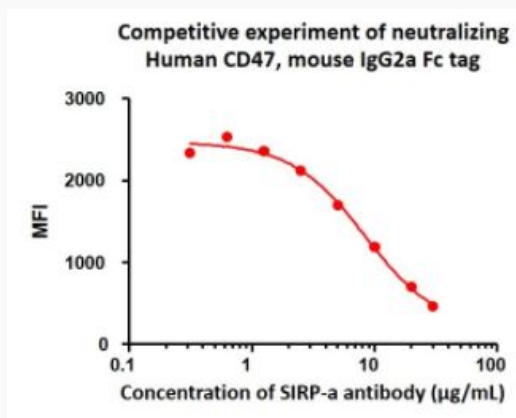
Loaded Human CD47, Mouse IgG2a Fc Tag, low endotoxin on Protein A Biosensor, can bind Human SIRP alpha, His Tag (HPLC-verified) with an affinity constant of 1.1 μ M as determined in BLI assay (Routinely tested).

Bioactivity-FACS of CD47-348H



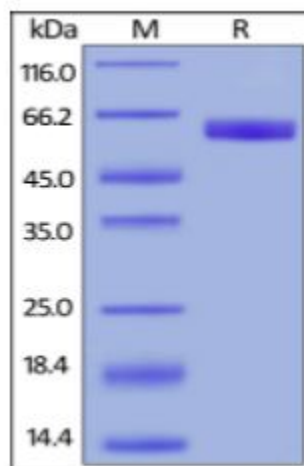
FACS assay shows that Human CD47, Mouse IgG2a Fc Tag, low endotoxin can bind to ACHN cell expressing human SIRP-a. The concentration of CD47 used is 10 μ g/mL (Routinely tested).

Bioactivity-FACS of CD47-348H



FACS analysis shows that the binding of Human CD47 to ACHN expressing SIRP-a was inhibited by increasing concentration of neutralizing SIRP-a antibody. The concentration of Human CD47 used is 10 µg/mL. IC₅₀=8.39 µg/mL

SDS-PAGE of CD47- 348H



Human CD47, Mouse IgG2a Fc Tag, low endotoxin on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.