

Product datasheet

Recombinant human SIRP alpha protein (Fc Chimera Active) ab221342

6 Images

Description

Product name	Recombinant human SIRP alpha protein (Fc Chimera Active)
Biological activity	<p>Measured by its binding ability in a functional ELISA. Recombinant human CD47 protein (Active) (ab174029) at 2 µg/mL (100 µL/well) can bind ab221342 with a linear range of 4-31 ng/mL.</p> <p>Measured by its binding ability in a functional ELISA. Serial dilutions of Anti-Human CD47 Neutralizing Antibody were added into ab221342: Recombinant human CD47 protein (Fc Chimera Active) (Biotin) (ab246018) binding reactions. The half maximal inhibitory concentration (IC50) is 0.2006 µg/mL.</p> <p>Measured by its binding ability in FACS. The binding of ab221342 to Jurkat expressing CD47 was inhibited by increasing concentration of neutralizing anti-CD47 antibody. The concentration of SIRP alpha used is 0.3 µg/ml. IC50=0.1318 µg/ml.</p> <p>Measured by its binding ability in FACS. Recombinant ab221342 can bind to Jurkat cell expressing CD47. The concentration of SIRP alpha used is 0.3 µg/ml.</p>
Purity	<p>> 95 % SDS-PAGE.</p> <p>>90% pure as determined by SEC-HPLC. Protein A purified.</p>
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	P78324
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human

Sequence	<pre> EEELQVIQPKSVLVAAGETATLRCTATSLIPVGPIQWFRG AGPGRELIY NQKEGHFPRVTTVSDLTKRNNMDFSI RIGNITPADAGTYIC VKFRKGS PD DVEFKSGAGTELSVRAKPSAPVVSGPAARATPQHTVSFT CESHGFS PRDI TLKWFKNGNELSDFQTNVDPVGESVSYSIHSTAKVVL TRE DVHSQV ICEV AHVTLQGDPLRGTANLSETIRVPPTLEVTQQPVRAENQVN VTCQVRKFYP </pre>
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QRLQLTWLENGNVSRTETASTVTENKDGTYNWMSWLLVN
VSAHRDDVKLT
CQVEHDGQPAVSKSHDLKVS AHPKEQGSNTAAENTGSN
ER

Predicted molecular weight	64 kDa including tags
Amino acids	31 to 370
Tags	Fc tag C-Terminus
Additional sequence information	This protein carries a mouse IgG1 Fc tag at the C-terminus (Val 98-Lys 324; AAK53870.1). (NP_001035111).

Specifications

Our [Abpromise guarantee](#) covers the use of **ab221342** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Flow Cytometry ELISA SDS-PAGE HPLC Functional Studies
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Form Lyophilized

Additional notes This product is stable after storage at:
-20°C to -70°C for 12 months in lyophilized state;
-70°C for 3 months under sterile conditions after reconstitution.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.4 Constituents: 0.61% Tris, 0.75% Glycine, 5% Trehalose This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute with sterile deionized water to a concentration of 500 µg/ml.

General Info

Function	Immunoglobulin-like cell surface receptor for CD47. Acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane. Supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. May play a key role in intracellular signaling during synaptogenesis and in synaptic function (By similarity). Involved in the negative regulation of receptor tyrosine kinase-coupled cellular responses induced by cell adhesion, growth factors or insulin. Mediates negative regulation of phagocytosis, mast cell activation and dendritic cell activation. CD47 binding prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells.
Tissue specificity	Ubiquitous. Highly expressed in brain. Detected on myeloid cells, but not T-cells. Detected at lower levels in heart, placenta, lung, testis, ovary, colon, liver, small intestine, prostate, spleen,

kidney, skeletal muscle and pancreas.

Sequence similarities

Contains 2 Ig-like C1-type (immunoglobulin-like) domains.

Contains 1 Ig-like V-type (immunoglobulin-like) domain.

Post-translational modifications

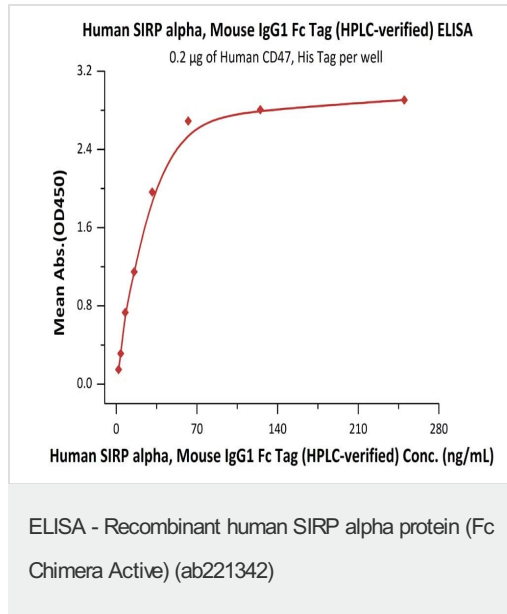
N-glycosylated.

Phosphorylated on tyrosine residues in response to stimulation with EGF, growth hormone, insulin and PDGF. Dephosphorylated by PTPN11.

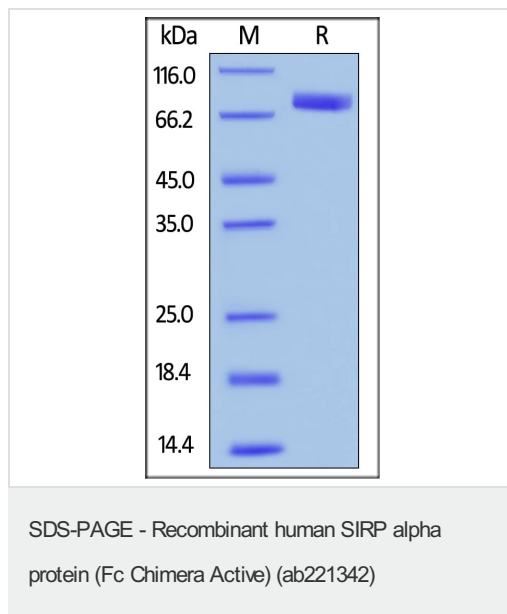
Cellular localization

Membrane.

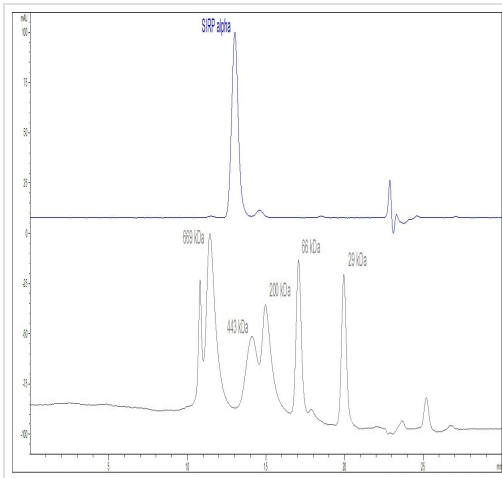
Images



Recombinant human CD47 protein (Active) ([ab174029](#)) at 2 µg/mL (100 µL/well) can bind ab221342 with a linear range of 4-31 ng/mL.

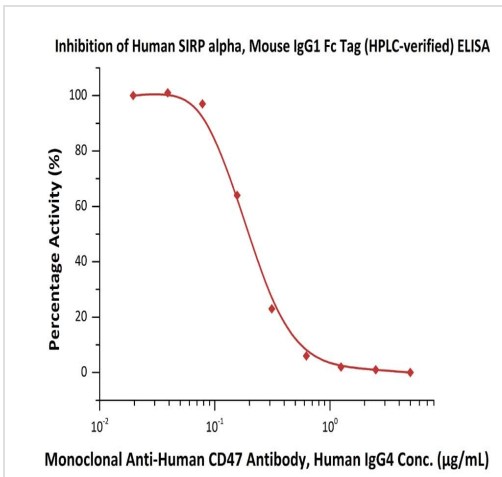


SDS PAGE of reduced ab221342 stained overnight with Coomassie Blue. The protein migrates as 70-105 kDa under reducing conditions due to glycosylation.



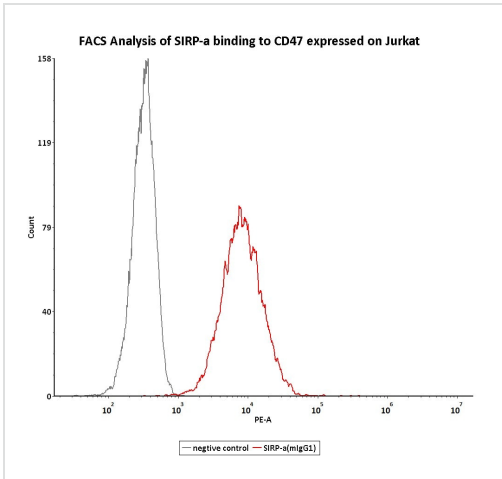
HPLC - Recombinant human SIRP alpha protein (Fc Chimera Active) (ab221342)

The purity of ab221342 was greater than 90% as determined by SEC-HPLC.



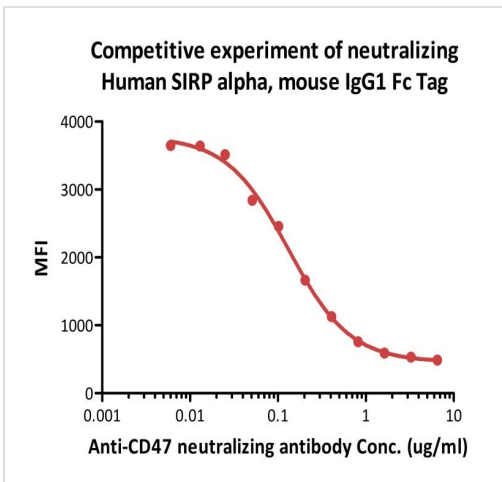
ELISA - Recombinant human SIRP alpha protein (Fc Chimera Active) (ab221342)

Serial dilutions of Anti-Human CD47 Neutralizing Antibody were added into ab221342: Recombinant human CD47 protein (Fc Chimera Active) (Biotin) (ab246018) binding reactions. The half maximal inhibitory concentration (IC50) is 0.2006 µg/mL.



FACS assay shows that recombinant ab221342 can bind to Jurkat cell expressing CD47. The concentration of SIRP alpha used is 0.3 µg/ml.

Flow Cytometry - Recombinant human SIRP alpha protein (Fc Chimera Active) (ab221342)



FACS analysis shows that the binding of ab221342 to Jurkat expressing CD47 was inhibited by increasing concentration of neutralizing anti-CD47 antibody. The concentration of SIRP alpha used is 0.3 µg/ml. IC50=0.1318 µg/ml.

Functional Studies - Recombinant human SIRP alpha protein (Fc Chimera Active) (ab221342)

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