abcam

Product datasheet

Recombinant human CD47 protein (Fc Chimera Active) ab220587

6 Images

Description

Product name	Recombinant human CD47 protein (Fc Chimera Active)
Biological activity	Measured by its binding ability in a functional ELISA. Immobilized ab220587 at 2 µg/mL (100 µL/well) can bind Human SIRP alpha, His Tag with a linear range of 0.016-0.5 µg/mL.
Purity	> 95 % SDS-PAGE. >90% as determined by SEC-MALS.
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	Q08722-3
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	QLLFNKTKSVEFTFCNDTVVIPCFVTNMEAQNTTEVYVKW KFKGRDIYTF DGALNKSTVPTDFSSAKIEVSQLLKGDASLKMDKSDAVS HTGNYTCEVTE LTREGETIIELKYRVVSWFSP
Predicted molecular weight	40 kDa including tags
Amino acids	19 to 139
Tags	Fc tag C-Terminus
Additional sequence information	Fused with a human IgG1 Fc tag (Pro 100 - Lys 330; P01857) at the C-terminus (NP_942088).

Specifications

Our **Abpromise guarantee** covers the use of **ab220587** in the following tested applications.

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

Applications	Functional Studies
	SDS-PAGE
	Flow Cytometry

Form	Lyophilized

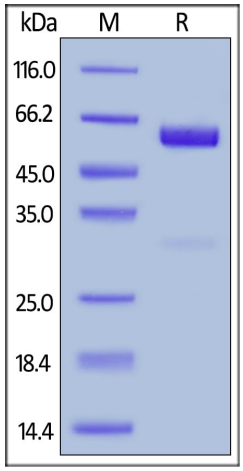
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.4 Constituents: 0.61% Tris, 0.75% Glycine, 5% Trehalose Lyophilized from 0.22 µm filtered solution. 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 1 mg/ml.

General Info

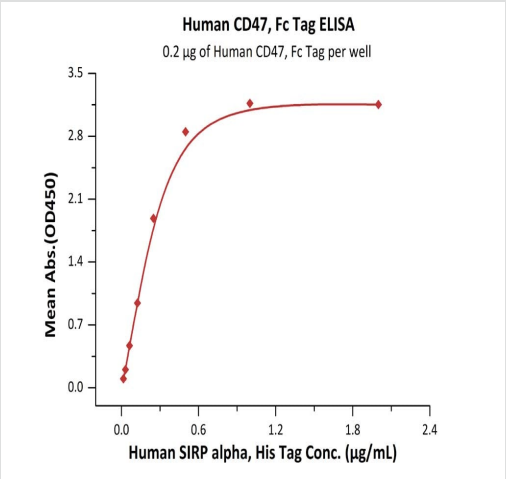
Function	Has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins. Plays an important role in memory formation and synaptic plasticity in the hippocampus (By similarity). Receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation. May play a role in membrane transport and/or integrin dependent signal transduction. May prevent premature elimination of red blood cells. May be involved in membrane permeability changes induced following virus infection.
Tissue specificity	Very broadly distributed on normal adult tissues, as well as ovarian tumors, being especially abundant in some epithelia and the brain.
Sequence similarities	Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Cellular localization	Cell membrane.

Images



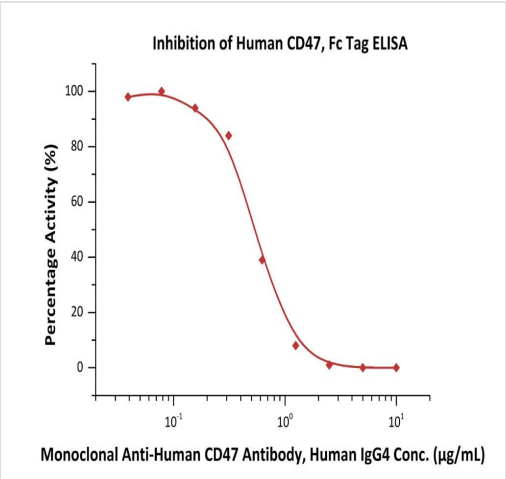
SDS-PAGE - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

Human CD47 (Fc Tag) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



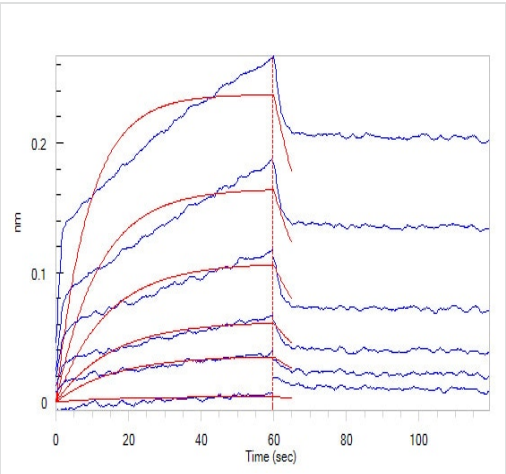
Functional Studies - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

Immobilized ab220587 at 2 µg/mL (100 µL/well) can bind Human SIRP alpha, His Tag (HPLC-verified) with a linear range of 0.016-0.5 µg/mL.



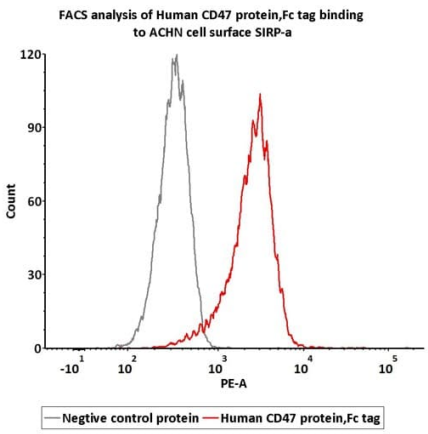
ELISA - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

Serial dilutions of Anti-Human CD47 Neutralizing Antibody were added into Human CD47, Fc Tag (HPLC-verified) (ab220587): Biotinylated Human SIRP alpha, Fc,Avitag (**ab246052**) binding reactions. The half maximal inhibitory concentration (IC50) is 0.5431 µg/mL



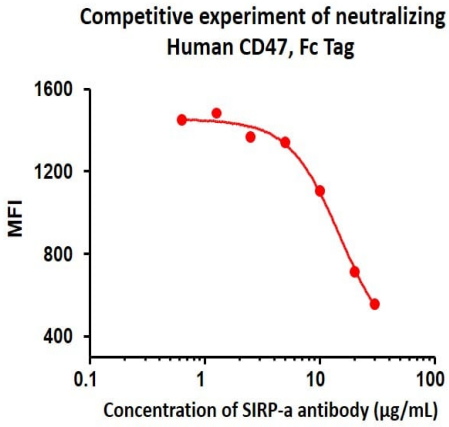
Biological activity - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

Loaded Recombinant human CD47 protein (Fc Chimera Active) (ab220587) on Protein A Biosensor, can bind Human SIRP alpha, His Tag (HPLC-verified) (**ab174006**) with an affinity constant of 1.1 µM as determined in BLI assay



Flow Cytometry - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

FACS assay shows that ab220587 can bind to ACHN cell expressing SIRP-a. The concentration of CD47 used is 10 µg/mL.



Biological activity - Recombinant human CD47 protein (Fc Chimera Active) (ab220587)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors