Datasheet for ABIN2870532

CD47 Protein (CD47) (AA 19-139) (Fc Tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	CD47
Protein Characteristics:	AA 19-139
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CD47 protein is labelled with Fc Tag,AVI tag,Biotin.

Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 19-139
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	This protein carries a human IgG1 Fc fragment at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 42.2 kDa. The protein migrates as 50 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CD47
Alternative Name:	CD47 (CD47 Products)
Background:	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.
Molecular Weight:	42.2 kDa
NCBI Accession:	NP_942088

Application Details

Comment:	Ready-to-use AvitagTM biotinylated protein: The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA. This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Tris with Glycine, Arginine and NaCl, pH 7.5
Handling Advice:	Please avoid repeated freeze-thaw cycles.

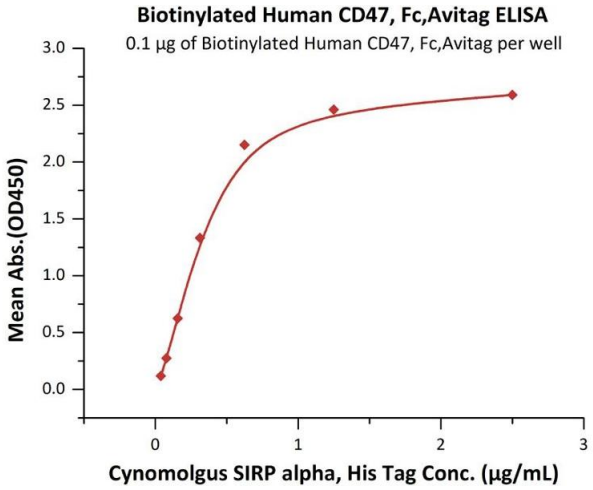
Handling

Storage:	-20 °C

Publications

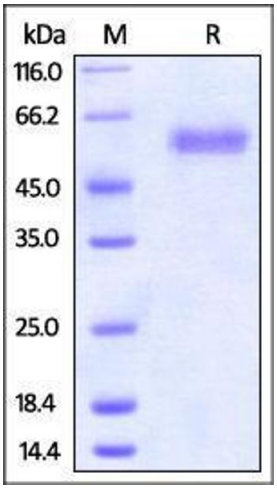
Product cited in:	Aghevlian, Wu, Raie, Tumbale, Kare, Seo, Ferrara: "Pre-clinical evaluation of immunoPET imaging using agonist CD40 monoclonal antibody in pancreatic tumor-bearing mice." in: **Nuclear medicine and biology**, Vol. 98-99, pp. 8-17 (PubMed).

Images



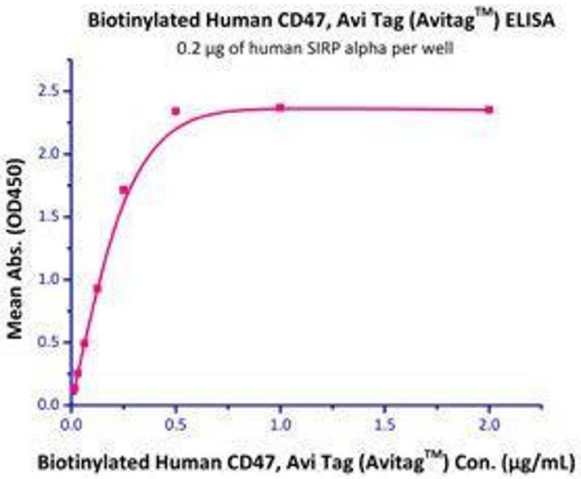
ELISA

Image 1. Immobilized Biotinylated Human CD47, Fc,Avitag (ABIN2870532,ABIN2870533) at 1 µg/mL (100 µL/well) on streptavidin precoated (0.2 µg/well) plate, can bind Cynomolgus SIRP alpha, His Tag (ABIN5955016,ABIN6253574) with a linear range of 0.039-0.625 µg/mL (Routinely tested).



SDS-PAGE

Image 2. Biotinylated 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%.



Binding Studies

Image 3. Immobilized Human SIRP alpha Protein, His Tag (Cat# SIA-H5225) at 2 µg/mL (100 µL/well) can bind Biotinylated Human CD47 Protein, Fc Tag (Cat# CD7-H82F6) with a linear range of 8-250 ng/mL.