Datasheet for ABIN5526677

SIRPA Protein (AA 31-370) (Fc Tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	SIRPA
Protein Characteristics:	AA 31-370
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This SIRPA protein is labelled with Fc Tag,AVI tag,Biotin.

Product Details

Brand:	PrecisionAvi
Sequence:	AA 31-370
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 tag at the C-terminus, followed by a Avi tag (Avitag™). The protein has a calculated MW of 65.8 kDa. The protein migrates as 75-105 kDa under reducing (R) condition (SDS-PAGE) 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:	SIRPA
Alternative Name:	SIRP alpha (SIRPA Products)
Background:	Tyrosine-protein phosphatase non-receptor type substrate 1 (SHPS1) is also known as CD172 antigen-like family member A (CD172a), Macrophage fusion receptor, MyD-1 antigen, Signal-regulatory protein alpha (SIRPA or SIRP alpha) or p84, is a member of the SIRP family, and also belongs to the immunoglobulin superfamily. SIRP alpha is Ubiquitous and highly expressed in brain. SIRPA / CD172a is immunoglobulin-like cell surface receptor for CD47 and acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane. SIRPA / SHPS-1 supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment and may play a key role in intracellular signaling during synaptogenesis and in synaptic function By similarity. SIRPA / MyD1 involved in the negative regulation of receptor tyrosine kinase-coupled cellular responses induced by cell adhesion, growth factors or insulin and 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.
Molecular Weight:	65.8 kDa
NCBI Accession:	NP_001035111

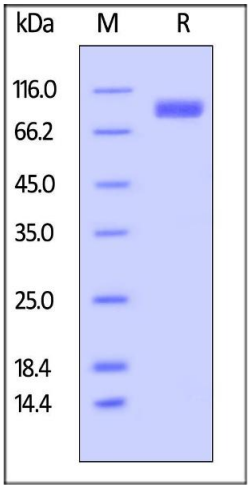
Application Details

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

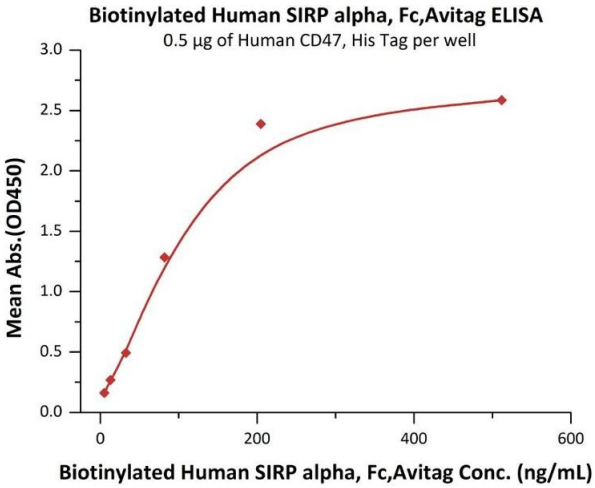
Format:	Lyophilized
Buffer:	Tris with Glycine, Arginine and NaCl, pH 7.5
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Images



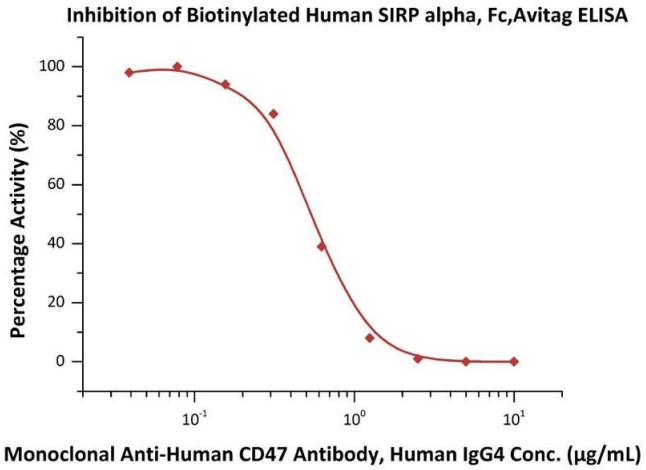
SDS-PAGE

Image 1. Biotinylated Human SIRP alpha, Fc,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95 % .



ELISA

Image 2. Immobilized Human CD47, His Tag (ABIN2180804,ABIN2180803) at 5 µg/mL (100 µL/well) can bind Biotinylated Human SIRP alpha, Fc,Avitag (ABIN5526676,ABIN5526677) with a linear range of 5-205 ng/mL (QC tested).



ELISA

Image 3. Serial dilutions of A CD47 Neutralizing Antibody were added into Human CD47, Fc Tag (ABIN2180806,ABIN2180805): Biotinylated Human SIRP alpha, Fc,Avitag (ABIN5526676,ABIN5526677) binding reactions. The half maximal inhibitory concentration (IC50) is 0.5431 µg/mL (Routinely tested).

