

# Human SIRP alpha/CD172a Protein

Cat. No. SRP-HM272

## Description

<b>Source</b>	Recombinant Human SIRP alpha/CD172a Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Glu31-Arg370.
<b>Accession</b>	P78324-1
<b>Molecular Weight</b>	The protein has a predicted MW of 64.1 kDa. Due to glycosylation, the protein migrates to 78-90 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by SEC-HPLC

## Formulation and Storage

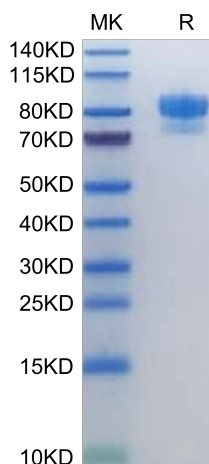
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Signal regulatory protein  $\alpha$  (SIRP $\alpha$ ) is a regulatory membrane glycoprotein from SIRP family expressed mainly by myeloid cells and also by stem cells or neurons. SIRP $\alpha$  acts as inhibitory receptor and interacts with a broadly expressed transmembrane protein CD47 also called the "don't eat me" signal. Cancer cells highly expressed CD47 that activate SIRP  $\alpha$  and inhibit macrophage-mediated destruction.

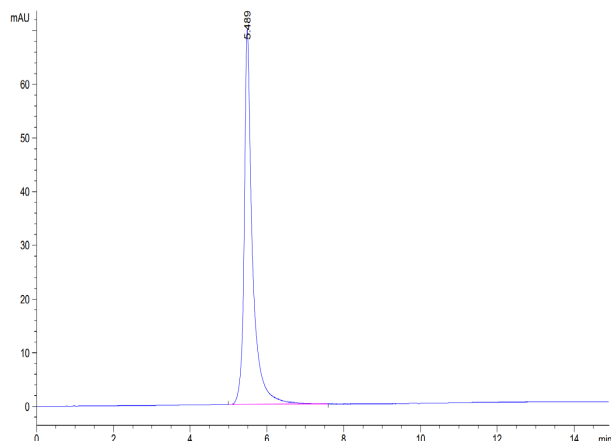
## Assay Data

### Tris-Bis PAGE



Human SIRP alpha on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



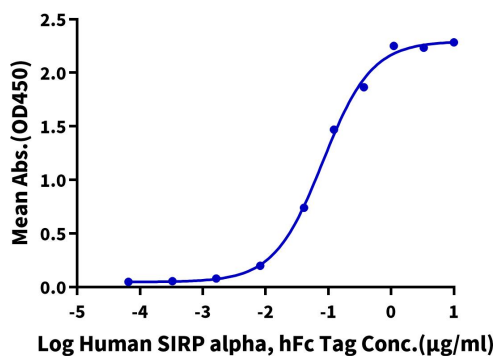
The purity of SIRP alpha is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

**Human SIRP alpha, hFc Tag ELISA**

0.2µg Human CD47, His Tag Per Well

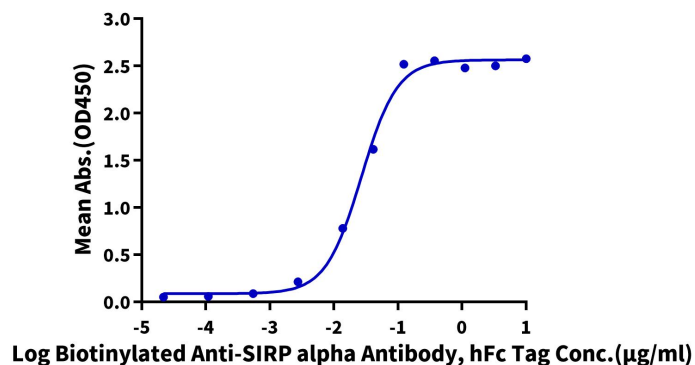


Immobilized Human CD47, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Human SIRP alpha, hFc Tag with the EC50 of 82.1ng/ml determined by ELISA (QC Test).

ELISA Data

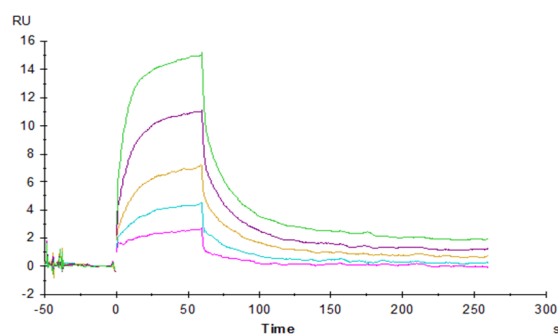
**Human SIRP alpha, hFc Tag ELISA**

0.05µg Human SIRP alpha, hFc Tag Per Well



Immobilized Human SIRP alpha, hFc Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Biotinylated Anti-SIRP alpha Antibody, hFc Tag with the EC50 of 26.9ng/ml determined by ELISA.

SPR Data



Human CD47, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human SIRP alpha, hFc Tag with an affinity constant of 18.9nM as determined in SPR assay (Biacore T200).