

# Human SIRP alpha/CD172a Protein

## HA210251



<b>Product name:</b>	Human SIRP alpha/CD172a Protein
<b>Species reactivity:</b>	Human
<b>Protein construction description:</b>	Recombinant Human SIRP alpha/CD172a Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Glu31-Arg370.

**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.

**Purity:** > 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

**Endotoxin:** Less than 1EU per  $\mu$ g by the LAL method.

**Source:** HEK293

**Accession:** P78324-1

**Predicted molecular mass:** The protein has a predicted MW of 38.1 kDa. Due to glycosylation, the protein migrates to 50-65 kDa based on Tris-Bis PAGE result.

**Formulation:** Lyophilized from 0.22 $\mu$ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

**Reconstitution:** Centrifuge the tube before opening. Reconstituting to a concentration more than 100  $\mu$ g/ml is recommended. Dissolve the lyophilized protein in distilled water.

**Storage:** -20 to -80°C for 12 months as supplied from date of receipt.  
-80°C for 3-6 months 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.

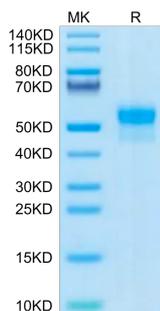
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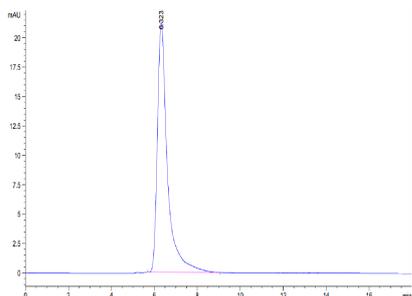
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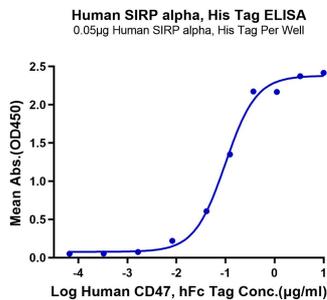
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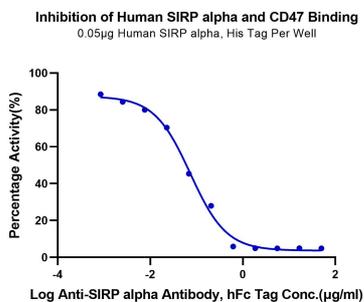
**Fig1:** Human SIRP alpha on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



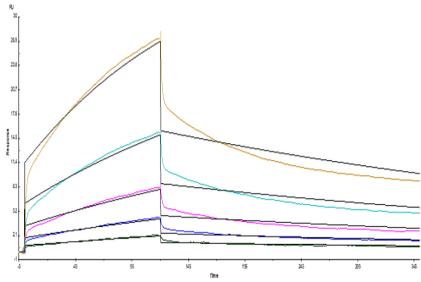
**Fig2:** The purity of Human SIRP alpha is greater than 95% as determined by SEC-HPLC.



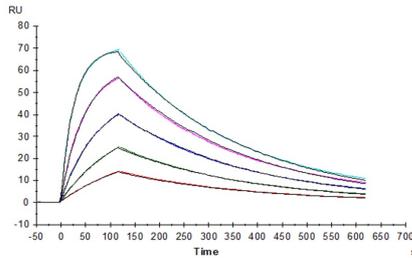
**Fig3:** Immobilized Human SIRP alpha, His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Human CD47, hFc Tag with the EC50 of 99.1ng/ml determined by ELISA (QC Test).



**Fig4:** Serial dilutions of Anti-SIRP alpha Antibody were added into Human SIRP alpha, His Tag; Biotinylated Human CD47, His Tag binding reactions. The half maximal inhibitory concentration (IC50) is 73.46ng/ml.



**Fig5:** Human SIRP alpha, His Tag captured on Protein A Chip via Anti-His Antibody can bind Human CD47, hFc Tag with an affinity constant of 20.6nM as determined in SPR assay (Biacore T200).



**Fig6:** Anti-SIRP alpha Antibody captured on CM5 Chip via Protein A can bind Human Sirpa, His Tag with an affinity constant of 2.81 nM as determined in SPR assay (Biacore T200).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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