

For Research Use Only

# Recombinant Human SIRP alpha/CD172a protein (His Tag)(HPLC verified)

Catalog Number: Eg0625



## Basic Information

**Species:**  
Human

**Purity:**  
>90 %, SDS-PAGE<br>>90 %, SEC-HPLC

**Tag:**  
His Tag

## Technical Specifications

**Purity:**  
>90 %, SDS-PAGE<br>>90 %, SEC-HPLC

**Endotoxin Level:**  
<0.1 EU/ µg protein, LAL method

**Source:**  
HEK293-derived Human SIRP alpha protein Glu31-Arg370 (Accession# P78324-1) with a His tag at the C-terminus.

**GeneID:**  
140885

**Accession:**  
P78324-1

**Predicted Molecular Mass:**  
41.7 kDa

**SDS-PAGE:**  
50-70 kDa, reducing (R) conditions

**Formulation:**  
Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

## Biological Activity

Not tested

## Storage and Shipping

**Storage:**  
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

## Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

## Background

SIRP Alpha, also known as CD172a or SHPS-1, is a transmembrane glycoprotein that belongs to the SIRP family. SIRP Alpha is a receptor with immunoreceptor tyrosine-based inhibition motifs in its cytoplasmic domain expressed by myeloid cells, including monocytes, macrophages, granulocytes, and a subset of dendritic cells. After activation of SIRP Alpha, Src homology 2 domain-containing protein tyrosine phosphatase-1 (SHP-1) is recruited and regulates receptor tyrosine kinase coupled signaling, participating in the regulation of phagocytosis and polarization of macrophages. SIRP Alpha binds to CD47, a receptor present on all cells (and frequently overexpressed in cancer cells), and this interaction provides a 'do-not-eat-me' signal to prevent phagocytosis.

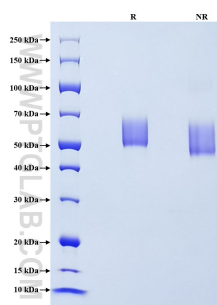
## References

1. Sarfati M, et al. (2008) Curr Drug Targets. 9(10):842-50.
2. Barclay AN, et al. (2014) Annu Rev Immunol. 32:25-50.
3. de Vos AF, et al. (2020) Nat Immunol. 21(6):601-603.
4. Shen Q, et al. (2022) Front Immunol. 13:865579.

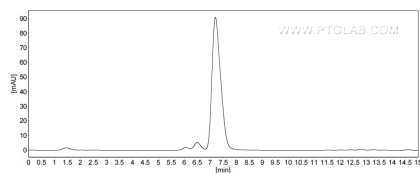
## Synonyms

SIRP Alpha, SIRPA, BIT, Brain Ig-like molecule with tyrosine-based activation motifs, CD172 antigen-like family member A

## Selected Validation Data



Purity of Recombinant Human SIRP alpha was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



The purity of Human SIRP alpha/CD172a was greater than 90% as determined by SEC-HPLC.

For technical support and original validation data for this product please contact

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