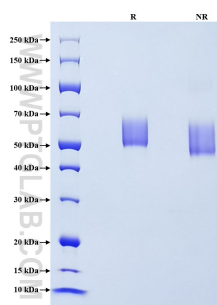


Recombinant Human SIRP alpha/CD172a protein (His Tag)

Catalog Number: Eg0625

Basic Information	Species: Human	Purity: >90 %, SDS-PAGE	Tag: His Tag
Technical Specifications	<p>Purity: >90 %, SDS-PAGE</p> <p>Endotoxin Level: <0.1 EU/ µg protein, LAL method</p> <p>Source: HEK293-derived Human SIRP alpha protein Glu31-Arg370 (Accession# P78324-1) with a His tag at the C-terminus.</p> <p>GeneID: 140885</p> <p>Accession: P78324-1</p> <p>Predicted Molecular Mass: 38.1 kDa</p> <p>SDS-PAGE: 50-70 kDa, reducing (R) conditions</p> <p>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.</p>		
Biological Activity	Not tested		
Storage and Shipping	<p>Storage: It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none">• Until expiry date, -20°C to -80°C as lyophilized proteins.• 3 months, -20°C to -80°C under sterile conditions after reconstitution. <p>Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.</p>		
Reconstitution	Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.		
Background	<p>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.</p>		
References	<ol style="list-style-type: none">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, SIRP Alpha/CD172a, SIRPA, BIT, Brain Ig-like molecule with tyrosine-based activation motifs		

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.