

Product datasheet for **TP723932**

SIRP alpha (SIRPA) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Human SIRP alpha Protein, hFc-His Tag
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	SIRPa[Glu31-Arg370]+hFc[Glu99-Ala330]+6×His tag
Tag:	C-Human Fc and 6×His
Predicted MW:	70-98 kDa
Purity:	> 95%
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose is added as protectants before lyophilization
Reconstitution Method:	Reconstitute with deionized water
Preparation:	Affinity purification
Applications:	ELISA
Storage:	Store the lyophilized protein at -20°C. After reconstitution, store the protein at -80°C for 12 months. Avoid repeated freezing and thawing.
Stability:	12 months from date of despatch
Locus ID:	140885
UniProt ID:	P78324



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Summary:

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.

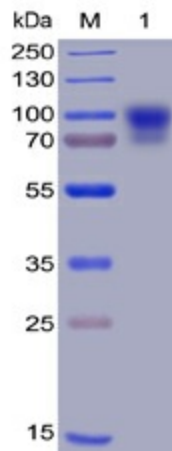
Product images:

Figure 1. Human SIRP1 α , hFc-His Tag on SDS-PAGE under reducing condition.

Human SIRP α , hFc-His tagged protein ELISA

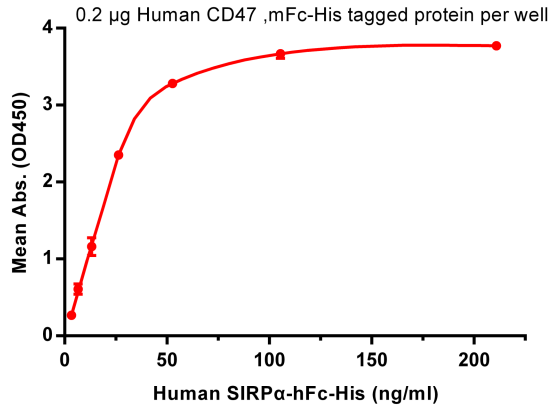


Figure 2. ELISA plate pre-coated by 2 μ g/ml (100 μ l/well) Human CD47, mFc-His tagged protein ([TP723931]) can bind its native ligand Human SIRP α , hFc-His tagged protein (TP723932) in a linear range of 3.3-26.37 ng/ml.

Human SIRP α , hFc-His tagged protein ELISA

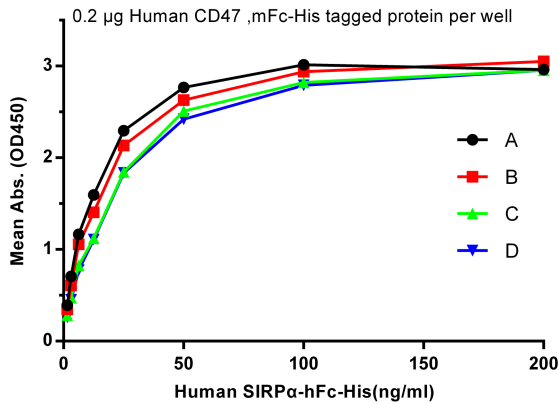


Figure 3. A: Human SIRP α , hFc-His tagged protein without freeze-thaw treatment. B: Human SIRP α , hFc-His tagged protein after one freeze-thaw cycle. C: Human SIRP α , hFc-His tagged protein after three freeze-thaw cycles. D: Human SIRP α , hFc-His tagged protein after five freeze-thaw cycles.

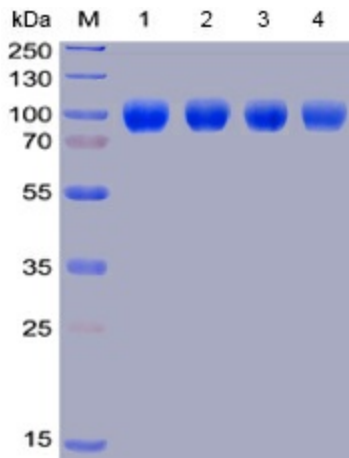


Figure 4. Lane 1: Human SIRP α , hFc-His tagged protein without freeze-thaw treatment, Lane 2: Human SIRP α , hFc-His tagged protein after one freeze-thaw cycle, Lane 3: Human SIRP α , hFc-His tagged protein after three freeze-thaw cycles, Lane 4: Human SIRP α , hFc-His tagged protein after five freeze-thaw cycles.