HUMAN SIRPA PROTEIN, HFC-HIS TAG

Cat.#: 11137
Product Name: Human SIRPa Protein
Size : 10 µg, 50 µg and 100 µg
Synonyms: SHPS1;SIRPA;CD172A;BIT;MFR;MYD1;P84;PTPNS
Target: SIRPa
UNIPROT ID: P78324
Description: Recombinant Human SIRPa with C-terminal human Fc and 6xHis tag
Background: 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.
Species/Host: HEK293
Molecular Weight: The protein has a predicted molecular mass of 70-98 kDa after removal of the signal peptide.
Molecular Characterization: SIRPa(Glu31-Tyr373) hFc(Glu99-Ala330) 6×His tag
Purity: The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.
Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

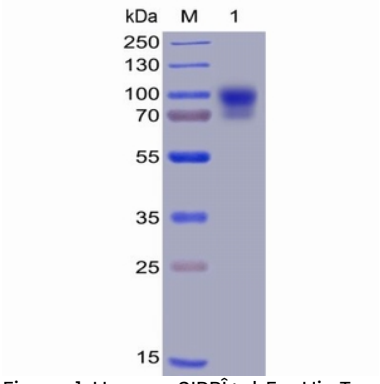

Figure 1. Human SIRPÎ±, hFc-His Tag on SDS-PAGE under reducing condition.

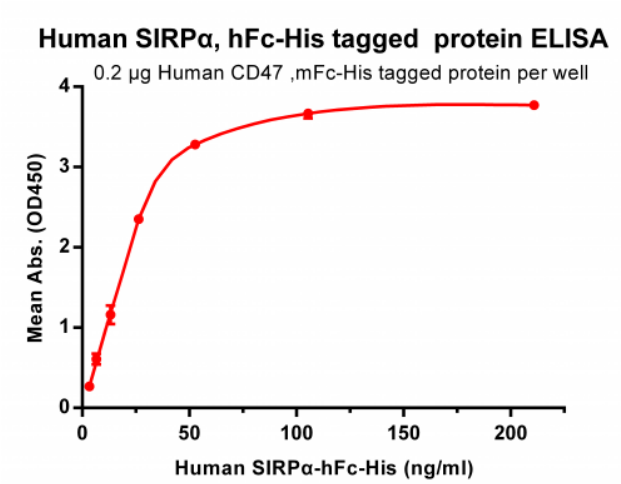

Figure 2. ELISA plate pre-coated by 2 μg/ml (100 μl/well) Human CD47, mFc-His tagged protein 11136 can bind its native ligand Human SIRPÎ±, hFc-His tagged protein (11137) in a linear range of 3.3-26.37 ng/ml.

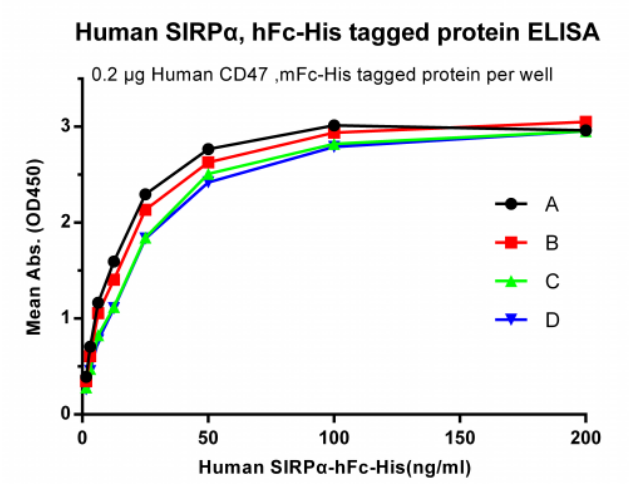

Figure 3. A: Human SIRPÎ±, hFc-His tagged protein without freeze-thaw treatment. B: Human SIRPÎ±, hFc-His tagged protein after one freeze-thaw cycle. C: Human SIRPÎ±, hFc-His tagged protein after three freeze-thaw cycles. D: Human SIRPÎ±, hFc-His tagged protein after five freeze-thaw cycles.

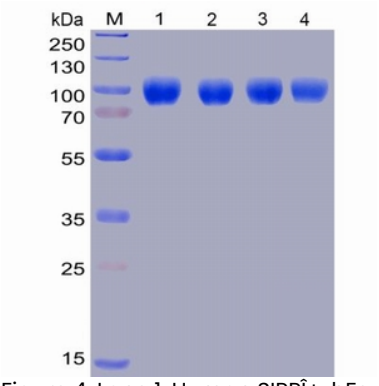

Figure 4. Lane 1: Human SIRPÎ±, hFc-His tagged protein without freeze-thaw treatment, Lane 2: Human SIRPÎ±, hFc-His tagged protein after one freeze-thaw cycle, Lane 3: Human SIRPÎ±, hFc-His tagged protein after three freeze-thaw cycles, Lane 4: Human SIRPÎ±, hFc-His tagged protein after five freeze-thaw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