

32-17009: Recombinant human SIRP alpha protein with C-terminal human Fc and 6Å—His tag

Alternative Name : SHPS1, SIRPA, CD172A, BIT, MFR, MYD1, P84, PTPNS

Description

Expression Host : HEK293

The protein has a predicted molecular mass of 70-98 kDa after removal of the signal peptide.

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 Info

Amount :	50 µg
Purification :	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Content :	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose is added as protectants before lyophilization.
Storage condition :	Store at -80°C for 12 months (Avoid repeated freezing and thawing)

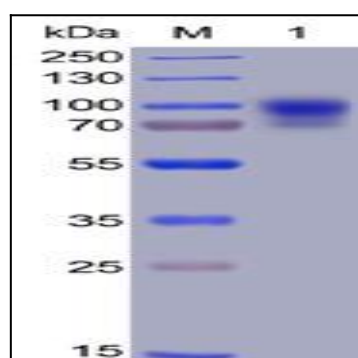


Figure 1. Human SIRP alpha, hFc-His Tag on SDS-PAGE under reducing condition.

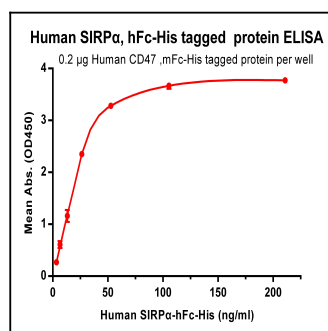


Figure 2. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human CD47, mFc-His tagged protein can bind its native ligand Human SIRP alpha, hFc-His tagged protein in a linear range of 3.3-26.37 ng/ml.

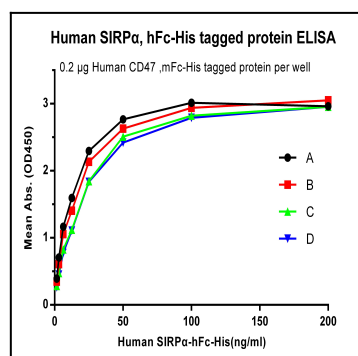


Figure 3. A: Human SIRP alpha, hFc-His tagged protein without freeze-thaw treatment. B: Human SIRP alpha, hFc-His tagged protein after one freeze-thaw cycle. C: Human SIRP alpha, hFc-His tagged protein after three freeze-thaw cycles. D: Human SIRP alpha, hFc-His tagged protein after five freeze-thaw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

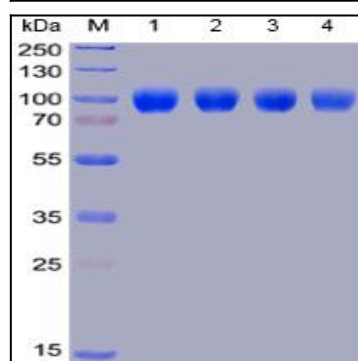


Figure 4. Lane 1: Human SIRP alpha, hFc-His tagged protein without freeze-thaw treatment, Lane 2: Human SIRP alpha, hFc-His tagged protein after one freeze-thaw cycle, Lane 3: Human SIRP alpha, hFc-His tagged protein after three freeze-thaw cycles, Lane 4: Human SIRP alpha, hFc-His tagged protein after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