

DATASHEET

Version 20181206

SIRP α , His, Human

Cat. No.: Z03421-100

Size: 100.0 μ g

Synonyms: CD172 antigen-like family member A; CD172a antigen; CD172a

Description:

Signal regulatory protein alpha (SIRP α , designated CD172a), is also known as CD172 antigen-like family member A (CD172a), also called SHPS-1 (SHP substrate 1) and previously, MyD-1 (Myeloid/Dendritic-1), which is a monomeric about 90kDa type I transmembrane glycoprotein that belongs to the SIRP/SHPS (CD172) family of the immunoglobulin superfamily. SIRP α is Ubiquitous and highly expressed in brain. SIRP α /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. SIRP α /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. SIRP α recognition of surfactants SP-A and SP-D in the lung can inhibit alveolar macrophage cytokine production.

Recombinant Human SIRP α produced in HEK293 cells is a polypeptide chain containing 346 amino acids with C-terminal 6His. A fully biologically active molecule, rhSIRP α has a molecular mass of 50-55 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 EEELQVIQPD KSVLVAAGET ATLRCATSL IPVGPIQWFR
00041 GAGPGRELIY NQKEGHFPRV TTVSDLTARN NMFSSIRIGN
00081 ITPADAGTYI CVKFRKGSPT DVEFKSGAGT ELSVRAKPSA
00121 PVVSGPAARA TPQHTVSFTC ESHGFSPRDI TLKWFKNENE
00161 LSDFQTNVDP VGESVSYSIH STAKVVLTRE DVHSQVICEV
00201 AHVTLQGDPL RGTANLSETI RVPPTLEVTQ QPVRAENQVN
00241 VTCQVRKFYP QRLQLTWLEN GNVSRSTETAS TVTENKDGTY
00281 NWMSWLLNVN SAHRDDVKLT CQVEHDGQPA VSKSHDLKVS
00321 AHPKEQGSNT AAENTGSNER HHHHHH
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Source: HEK293

Species: Human

Biological Activity: Immobilized SIRP α -His, Human at 2 μ g/mL (100 μ l/well), can bind CD47 Fc Chimera, Human (Z03418) with a linear range of 0.25-185 ng/mL.

Molecular Weight: 50-55 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS, 5% trehalose and mannitol.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 μ g/ml

Purity: > 95% as analyzed by reducing SDS-PAGE.

Endotoxin Level: < 0.2 EU/ μ g, determined by LAL method.

Storage: Lyophilized recombinant SIRP α remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Human SIRP α should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.