

DATASHEET

Version 20181206

SIRPα Fc Chimera, Human

Cat. No.: Z03420-1

Size: 1.0 mg

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

Description:

Signal regulatory protein alpha (SIRPα, 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. SIRPα 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. SIRPα recognition of surfactants SP-A and SP-D in the lung can inhibit alveolar macrophage cytokine production. Recombinant Human SIRPα Fc Chimera produced in HEK293 cells is a polypeptide chain containing 572 amino acids with the C-terminal human IgG1 Fc fragment. A fully biologically active molecule; rhSIRPα a molecular mass of 85-100 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 NMFDSIRIGN
00081 ITPADAGTYI CVKFRKGSPI DVEFKSGAGT ELSVRAKPSA
00121 PVVSGPAARA TPQHTVSFTC ESHGFSPRDI TLKWFKNENE
00161 LSDFQTNVDP VGESVSYSIH STAKVVLTRE DVHSQVICEV
00201 AHVTLQGDPL RGTANLSETI RVPPTLEVTQ QPVRAENQVN
00241 VTCQVRKFYP QRLQLTWLEN GNVSRSTETAS TVTENKDGTY
00281 NWMSWLLVNV SAHRDDVKLT CQVEHDGQPA VSKSHDLKVS
00321 AHPKEQGSNT AAENTGSNER
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Source: HEK293

Species: Human

Biological Activity: Immobilized CD47, His, Human (Cat.No.Z03419) at 2 µg/mL (100 µl/well), can bind SIRPα Fc Chimera, Human with a linear range of 0.25-185 ng/mL.

Molecular Weight: 85-100 kDa, observed by reducing SDS-PAGE.

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

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

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

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

Storage: Lyophilized recombinant SIRPα remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Human SIRPα 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.