



Recombinant Protein Technical Manual

Recombinant Rat CD172a/SIRPA Protein (His Tag)(Active)
RPES4764

Product Data:

Product SKU: RPES4764

Size: 50µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: P97710

Protein Information:

Molecular Mass: 39 kDa

AP Molecular Mass: 63-80 kDa

Tag: C-His

Bio-activity: 1. Measured by its binding ability in a functional ELISA. 2. Immobilized rat SIRPA-His at 10µg/mL (100µL/well) can bind biotinylated rat CD47-His, the EC50 of biotinylated rat CD47-His is 0.1-0.4ug/mL.

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: SIRPA;Bit;Mfr;Ptpns1;Shps1;Sirp

Immunogen Information:

Sequence: Met1-Asn373

Background:

Tyrosine-protein phosphatase non-receptor type substrate 1, also known as SHP substrate 1, Inhibitory receptor SHPS, Brain Ig-like molecule with tyrosine-based activation motifs, Macrophage fusion receptor, CD172 antigen-like family member A, SIRPA and CD172a, is a single-pass type I membrane protein which contains two Ig-like C1-type (immunoglobulin-like) domains and one Ig-like V-type (immunoglobulin-like) domain. SIRPA is ubiquitously expressed. It is highly expressed in brain and detected at lower levels in heart, placenta, lung, testis, ovary, colon, liver, small intestine, prostate, spleen, kidney, skeletal muscle and pancreas. It is also detected on myeloid cells, but not T-cells. SIRPA is an immunoglobulin-like cell surface receptor for CD47. SIRPA acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma membrane. SIRPA supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. It may play a key role in intracellular signaling during synaptogenesis and in synaptic function. SIRPA is involved in the negative regulation of receptor tyrosine kinase-coupled cellular responses induced by cell adhesion, growth factors or insulin. It mediates negative regulation of phagocytosis, mast cell activation and dendritic cell activation.