Mouse SIRP alpha / CD172a Protein (ECD,His Tag)

Catalog Number: **50956-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AI835480; Bit; CD172a; P84; Ptpns1; SHP-1; SHPS-1; SIRP

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse SIRPA (BAA20376.1) (Met1-Asn373) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA.
Immobilized mouse SIRPA-His at 10 μg/ml (100 μl/well) can bind human CD47-Fc (Cat:12283-H02H), The EC_{50} of human CD47-Fc (Cat:12283-H02H) is 0.05-0.13 μg/ml.

Endotoxin:

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

Predicted N terminal: Thr 32

Molecular Mass:

The secreted recombinant mouse SIRPA comprises 353 amino acids and has a calculated molecular mass of 39.4 kDa. As a result of glycosylation, the apparent molecular mass of mouse SIRPA is approximately 50-70 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

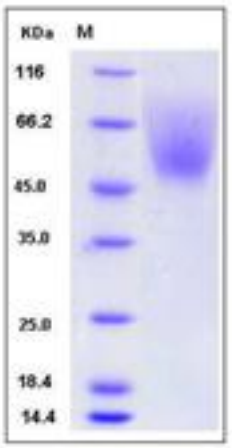
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tyrosine-protein phosphatase non-receptor type substrate 1, also known as SHP substrate 1, Inhibitory receptor SHPS-1, 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.

References

1.Timms JF. et al., 1999, Curr Biol. 9: 927-30.
2.Stofega MR. et al., 2000, J Biol Chem. 275: 28222-9.
3.Liu T. et al., 2005, J Proteome Res. 4: 2070-80.