

Synonym

SHPS1,SIRPA,CD172A,BIT,MFR,MYD1,P84,PTPNS1

Source

PE-Labeled Mouse SIRP alpha, His Tag (SIA-MP2H6) is produced via site-specific conjugation of PE to Mouse SIRP alpha, His Tag under optimal conditions with a proprietary technology. Mouse SIRP alpha, His Tag is expressed from human 293 cells (HEK293). It contains AA Lys 32 - Asn 373 (Accession # [P97797-1](#)).

Predicted N-terminus: Lys 32

Molecular Characterization

SIRP alpha(Lys 32 - Asn 373) P97797-1	Poly-his
--	----------

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 41.5 kDa.

Application

Please note that this product is NOT compatible to streptavidin detection system.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, 0.5% BSA, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

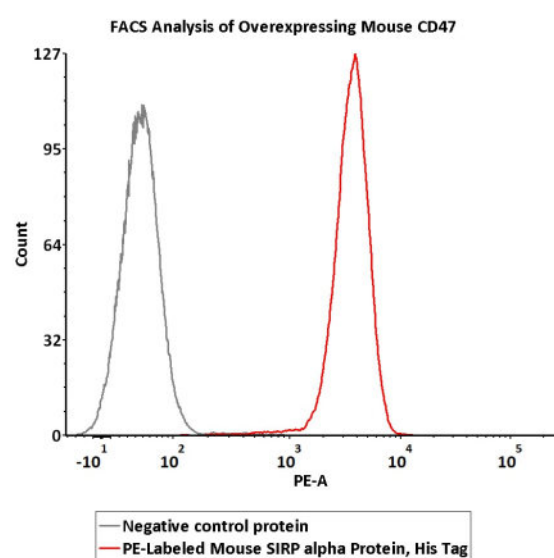
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-FACS

5×10^5 of overexpressing mouse CD47 cells were stained with 100 μ L of 1:50 dilution (2 μ L stock solution in 100 μ L FACS buffer) of PE-Labeled Mouse SIRP alpha, His Tag (Cat. No. SIA-MP2H6) and negative control protein respectively. PE signal was used to evaluate the binding activity (QC tested).

Background

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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.