

SIRP alpha Active Protein | SIRPA active protein

SIRP alpha Protein, Human, Recombinant (ECD, SIRP alphaV8, His Tag)

CATALOG #
AAA258064

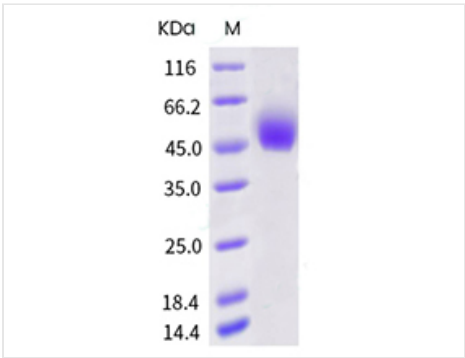
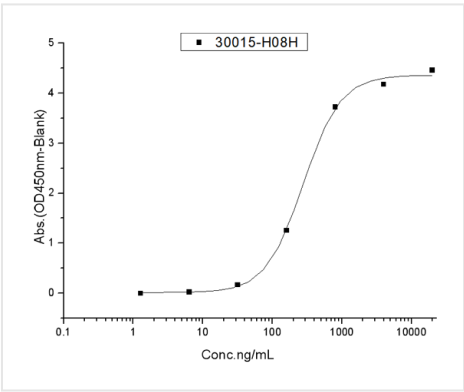
HOST
HEK293 Cells

PRODUCT SYNONYMS

SIRP alpha; SIRP alpha Protein; Human; Recombinant (ECD; SIRP alphaV8; His Tag); Human SIRP alphaV8 Protein (ECD; BIT Protein; CD172A Protein; MFR Protein; MYD-1 Protein; P84 Protein; PTPNS1 Protein; SHPS1 Protein; SIRP Protein; signal-regulatory protein alpha; SIRPA active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Arg36 9(S44L,S50 T,I52T,H54 R,V57A)
Species	Human
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Glu 31
Tag	C-His
Protein Construction	A DNA sequence encoding the human SIRP alphaV8 (AAH38510.1, with mutation Ser 44 Leu, Ser 50 Thr, Ile 52 Thr, His 54 Arg, Val 57 Ala)(Met1-Arg369) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized human CD47 at 2ug/ml (100uL/well) can bind human SIRPa(V8)-His. The EC50 of human SIRPa(V8)-His is 150-500ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized human CD47 at 2 ug/ml (100 ul/well) can bind human SIRPa(V8)-His, the EC50 of human SIRPa(V8)-His is 150-500 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for SIRPA active protein	Background: 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.
Product Categories/Family for SIRPA active protein	Cancer Drug Targets
References	Timms JF. et al., 1999, Curr Biol. 9: 927-30. Stofega MR. et al., 2000, J Biol Chem. 275: 28222-9. Liu T. et al., 2005, J Proteome Res. 4: 2070-80. Wolf-Yadlin A. et al., 2007, Proc Natl Acad Sci. 104: 5860-5.

NCBI AND UNIPROT INFORMATION

Molecular Weight	The recombinant human SIRP alphaV8 consists of 350 amino acids and predicts a molecular mass of 38.6kDa. As a result of glycosylation, it migrates as an approximately 49.9kDa band in SDS-PAGE under reducing conditions.
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.