10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SIRP alpha Antibody
Catalog # ASC10014

Specification

SIRP alpha Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P78324
Other Accession	NP_542970, 18426911
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**75 - 110 kDa KDa**
Application Notes	**SIRP alpha antibody can be used for Western blot at 0.5 - 1 µg/mL. 75 - 110 kDa bands should be detected. Antibody can also be used for immunocytochemistry starting at 1 µg/mL.**

SIRP alpha Antibody - Additional Information

Gene ID **140885**

Other Names
SIRP alpha Antibody: BIT, MFR, P84, SIRP, MYD-1, SHPS1, CD172A, PTPNS1, BIT, MYD1, Tyrosine-protein phosphatase non-receptor type substrate 1, Brain Ig-like molecule with tyrosine-based activation motifs, SHP substrate 1, signal-regulatory protein alpha

Target/Specificity
SIRPA; Recognizes SIRP alpha 1, 2 and 3.

Reconstitution & Storage
SIRP alpha antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
SIRP alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SIRP alpha Antibody - Protein Information

Name SIRPA

Synonyms BIT, MFR, MYD1, PTPNS1, SHPS1, SIRP

Function
Immunoglobulin-like cell surface receptor for CD47. Acts as docking protein and induces translocation of PTPN6, PTPN11 and other binding partners from the cytosol to the plasma

membrane. Supports adhesion of cerebellar neurons, neurite outgrowth and glial cell attachment. May play a key role in intracellular signaling during synaptogenesis and in synaptic function (By similarity). Involved in the negative regulation of receptor tyrosine kinase-coupled cellular responses induced by cell adhesion, growth factors or insulin. 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. Plays a role in antiviral immunity and limits new world arenavirus infection by decreasing virus internalization (By similarity). Receptor for THBS1 (PubMed:24511121). Interaction with THBS1 stimulates phosphorylation of SIRPA (By similarity). In response to THBS1, involved in ROS signaling in non-phagocytic cells, stimulating NADPH oxidase-derived ROS production (PubMed:24511121).

Cellular Location
Membrane; Single-pass type I membrane protein.

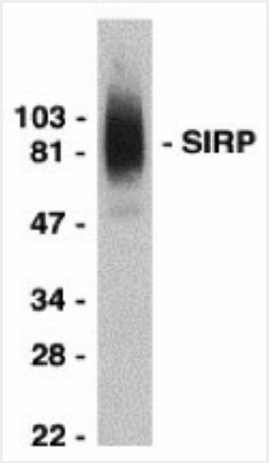
Tissue Location
Ubiquitous. Highly expressed in brain. Detected on myeloid cells, but not T-cells. Detected at lower levels in heart, placenta, lung, testis, ovary, colon, liver, small intestine, prostate, spleen, kidney, skeletal muscle and pancreas

SIRP alpha Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

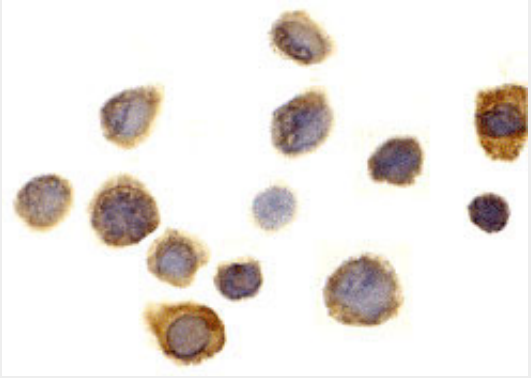
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SIRP alpha Antibody - Images



Western blot analysis of SIRP alpha in THP-1 whole cell lysate with SIRP alpha antibody at 0.5 µg/mL.

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Immunocytochemistry of SIRP alpha in THP-1 cells with SIRP alpha antibody at 1 µg/mL.

SIRP alpha Antibody - Background

SIRP alpha Antibody: Protein tyrosine phosphatases (PTPases) SHP-1 and SHP-2 are critical regulators in the intracellular signaling pathways that result in cell responses such as mitosis, differentiation, migration, survival, transformation or death. SHP-2 is a signal transducer for several receptor tyrosine kinases and cytokine receptors. A novel SHP-2 associated glycoprotein was recently cloned from human, rat, mouse and cattle by several labs and was designated SIRPalpha, SHPS-1, MyD-1, BIT and p84. SIRPalpha is a new gene family containing at least fifteen members. SIRPalpha is a substrate of many activated tyrosine kinases such as insulin receptor, EGFR, PDGFR and src, and a specific docking protein for SHP-2. SIRPalpha has regulatory effects on cellular responses induced by serum, growth factors, insulin, oncogenes, growth hormones and cell adhesion and plays a general role in different physiological and pathological processes.

SIRP alpha Antibody - References

Kharitonenkov A, et al. Nature 1997;386:181-186.
Fujioka Y, et al. Mol Cell Biol 1996;16:6887-6899
Yamao T, et al. Biochem Biophys Res Commun 1997;231:61-67
Brooke GP, et al. Eur J Immunol 1998;28:1-11