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PTPNS1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant SIRPA.
Catalog # AT3494a

Product Information

Application	WB, E
Primary Accession	P78324
Other Accession	BC026692
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	1D10
Calculated MW	54967

Additional Information

Gene ID	140885
Other Names	Tyrosine-protein phosphatase non-receptor type substrate 1, SHP substrate 1, SHPS-1, Brain Ig-like molecule with tyrosine-based activation motifs, Bit, CD172 antigen-like family member A, Inhibitory receptor SHPS-1, Macrophage fusion receptor, MyD-1 antigen, Signal-regulatory protein alpha-1, Sirp-alpha-1, Signal-regulatory protein alpha-2, Sirp-alpha-2, Signal-regulatory protein alpha-3, Sirp-alpha-3, p84, CD172a, SIRPA, BIT, MFR, MYD1, PTPNS1, SHPS1, SIRP
Target/Specificity	SIRPA (AAH26692, 28 a.a. ~ 507 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	PTPNS1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

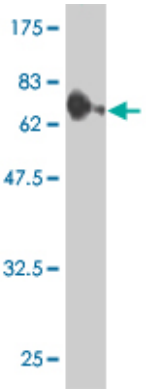
The protein encoded by this gene is a member of the signal-regulatory-protein (SIRP) family, and also belongs to the immunoglobulin superfamily. SIRP family members are receptor-type transmembrane glycoproteins known to be involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes. This protein can be phosphorylated by tyrosine kinases. The phospho-tyrosine residues of this PTP have been shown to recruit SH2 domain containing tyrosine phosphatases (PTP), and serve as

substrates of PTPs. This protein was found to participate in signal transduction mediated by various growth factor receptors. CD47 has been demonstrated to be a ligand for this receptor protein. This gene and its product share very high similarity with several other members of the SIRP family. These related genes are located in close proximity to each other on chromosome 20p13. Multiple alternatively spliced transcript variants have been determined for this gene.

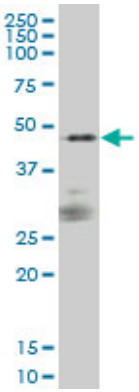
References

SIRPalpha1 receptors interfere with the EGFRvIII signalosome to inhibit glioblastoma cell transformation and migration. Kapoor GS, et al. Oncogene, 2010 Jul 22. PMID 20473329.Self inhibition of phagocytosis: the affinity of 'marker of self' CD47 for SIRPalpha dictates potency of inhibition but only at low expression levels. Tsai RK, et al. Blood Cells Mol Dis, 2010 Jun 15. PMID 20299253.Insulin-like growth factor-I-stimulated insulin receptor substrate-1 negatively regulates Src homology 2 domain-containing protein-tyrosine phosphatase substrate-1 function in vascular smooth muscle cells. Radhakrishnan Y, et al. J Biol Chem, 2010 May 21. PMID 20207740.The role of glucocorticoid in SIRP alpha and SHP-1 gene expression in AIHA patients. de Almeida AC, et al. Immunopharmacol Immunotoxicol, 2009. PMID 19874234.A genome-wide meta-analysis identifies 22 loci associated with eight hematological parameters in the HaemGen consortium. Soranzo N, et al. Nat Genet, 2009 Nov. PMID 19820697.

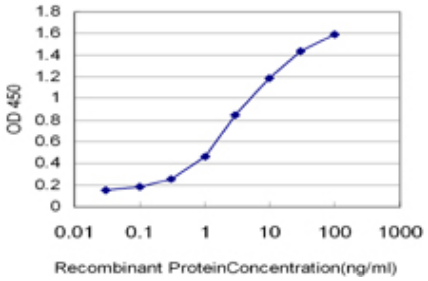
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (78.54 KDa) .



SIRPA monoclonal antibody (M01), clone 1D10 Western Blot analysis of SIRPA expression in IMR-32 ((Cat # AT3494a)



Detection limit for recombinant GST tagged SIRPA is approximately 0.03ng/ml as a capture antibody.