

Technical Data Sheet

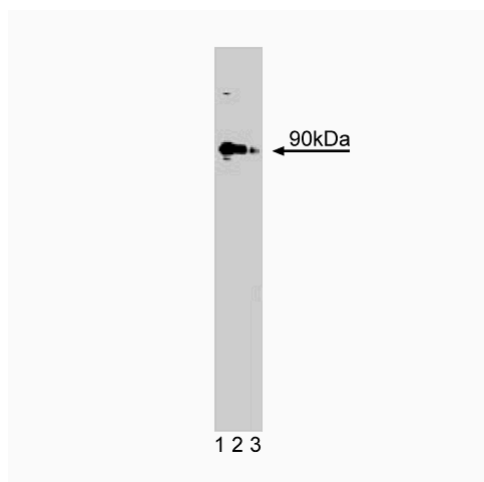
Purified Mouse Anti-SIRPα1

Product Information

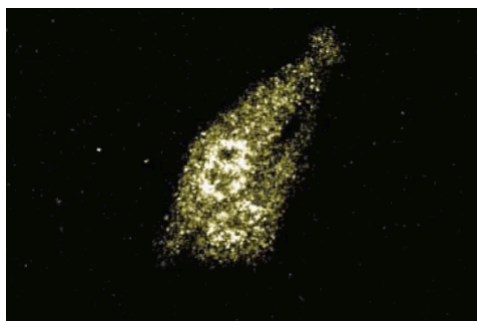
Material Number:	611008
Alternate Name:	Signal-Regulatory Protein α1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	27/SIRPα1
Immunogen:	Human SIRPα1 aa. 395-503
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Target MW:	90 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Protein tyrosine phosphatases participate in the intracellular signaling pathways of mitosis, differentiation, migration, survival, transformation, and death. SHP-2, a SH-2 domain containing phosphotyrosine phosphatase, is a positive signal transducer of receptor tyrosine kinases (RTKs) and cytokine receptors. SIRPs (Signal-Regulatory Proteins) were identified as a result of their association with SHP-2. The 15+ members of this family consist of two subtypes based on the presence or absence of a cytoplasmic SHP-2-binding domain. SIRPα1 is a transmembrane polypeptide substrate of activated RTKs. When tyrosine-phosphorylated, SIRPα1 binds SHP-2, SHP-1, Grb2 through an SH2 interaction. The SIRP proteins also constitute a subfamily within the Ig superfamily because they contain transmembrane glycoproteins with three Ig-like extracellular domains. Additionally, SIRPs' cytoplasmic tails contain two ITI (immunoreceptor tyrosine-based inhibition motifs). Although SIRPs have been shown to inhibit signaling through RTKs, their function is yet to be determined.



Western blot analysis of SIRPα1 on a rat cerebrum lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-SIRPα1 antibody.



Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma; ATCC CCL-2.2).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Adams S, van der Laan LJ, Vernon-Wilson E, et al. Signal-regulatory protein is selectively expressed by myeloid and neuronal cells. *J Immunol.* 1998; 161(4):1853-1859.(Biology)

Kharitonov A, Chen Z, Sures I, Wang H, Schilling J, Ullrich A. A family of proteins that inhibit signalling through tyrosine kinase receptors. *Nature.* 1997; 386(6621):181-186.(Biology)

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Veillette A, Thibaut E, Latour S. High expression of inhibitory receptor SHPS-1 and its association with protein-tyrosine phosphatase SHP-1 in macrophages. *J Biol Chem.* 1998; 273(35):22719-22728.(Biology)