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Product datasheet for TA392401S

SIRP alpha (SIRPA) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:1000~1:2000
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human CD172a.
Specificity:	CD172a polyclonal antibody detects endogenous levels of CD172a protein.
Formulation:	Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2.
Concentration:	1mg/ml
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Stability:	1 year
Predicted Protein Size:	~ 55-130 kDa
Gene Name:	signal regulatory protein alpha
Database Link:	Entrez Gene 140885 Human P78324

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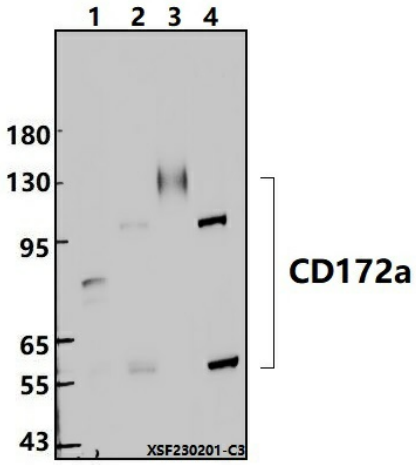
Background: SHP-substrate 1 (SHPS1, SIRPα) is a single-pass membrane protein and member of both the immunoglobulin superfamily and the signal regulatory protein (SIRP) family. Following growth hormone stimulation or integrin binding, SHPS1 is phosphorylated at several tyrosine residues within its cytoplasmic tail. These phosphorylation events promote association between SHPS1 and multiple signaling proteins, including SHP-1, SHP-2, Grb2 and Shc via their SH2 domains. Recruitment of SHP-1 and SHP-2 results in SHPS1 dephosphorylation and suppression of tyrosine kinase signaling. The tyrosine kinase JAK2 associates with SHPS1 via its carboxy terminus and phosphorylates SHPS1 in response to extracellular stimuli. Research studies show that Src associates with and may phosphorylate SHPS1 in response to insulin. In macrophages, SHPS1 can form a complex with the Src pathway adaptor protein SKAP2, Fyn-binding protein FYB, and the tyrosine kinase PYK2. The SHPS1 extracellular domain contains at least three IgG-like domains that interact with CD47, a ubiquitously expressed, integrin-associated protein that acts as a repressive cue in both immune and neuronal cells. The interaction between CD47 and SHPS1 on opposing cells can inhibit cellular migration, promote "tethering" between macrophages and target cells during engulfment, facilitate self versus non-self recognition, and maintain immune homeostasis. SHPS1 plays a critical role in modulating the immune response and inflammation, and may play a role in neuronal development. The interaction between SHPS1 and CD47 may be an exploitable target in cancer therapy.

Synonyms: BIT; Bit; Brain Ig-like molecule with tyrosine-based activation motifs; CD172 antigen-like family member A; CD172a; Inhibitory receptor SHPS-1; Macrophage fusion receptor; MFR; MyD-1 antigen; MYD1; p84; PTPNS1; SHPS-1; SHPS1; SHP substrate 1; Signal-regulatory protein alpha-1; Signal-regulatory protein alpha-2; Signal-regulatory protein alpha-3; SIRP; Sirp-alpha-1; Sirp-alpha-2; Sirp-alpha-3; SIRPA; Tyrosine-protein phosphatase non-receptor type substrate 1

Note: For research use only, not for use in diagnostic procedure.

Product images:



Western blot (WB) analysis of CD172a polyclonal antibody at 1:1000 dilution Lane1:A549 whole cell lysate(30ug) Lane2:RAW264.7 whole cell lysate(30ug) Lane3:L02 whole cell lysate(30ug) Lane4:C6 whole cell lysate(30ug)