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SH2D1A Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19972b

Product Information

Application	WB, E
Primary Accession	O60880
Other Accession	NP_002342.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41923
Calculated MW	14187
Antigen Region	85-114

Additional Information

Gene ID	4068
Other Names	SH2 domain-containing protein 1A, Duncan disease SH2-protein, Signaling lymphocytic activation molecule-associated protein, SLAM-associated protein, T-cell signal transduction molecule SAP, SH2D1A, DSHP, SAP
Target/Specificity	This SH2D1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 85-114 amino acids from the C-terminal region of human SH2D1A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SH2D1A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SH2D1A
Synonyms	DSHP, SAP

Function	Cytoplasmic adapter regulating receptors of the signaling lymphocytic activation molecule (SLAM) family such as SLAMF1, CD244, LY9, CD84, SLAMF6 and SLAMF7. In SLAM signaling seems to cooperate with SH2D1B/EAT-2. Initially it has been proposed that association with SLAMF1 prevents SLAMF1 binding to inhibitory effectors including INPP5D/SHIP1 and PTPN11/SHP-2 (PubMed:11806999). However, by simultaneous interactions, recruits FYN which subsequently phosphorylates and activates SLAMF1 (PubMed:12458214). Positively regulates CD244/2B4- and CD84-mediated natural killer (NK) cell functions. Can also promote CD48-, SLAMF6 -, LY9-, and SLAMF7-mediated NK cell activation. In the context of NK cell-mediated cytotoxicity enhances conjugate formation with target cells (By similarity). May also regulate the activity of the neurotrophin receptors NTRK1, NTRK2 and NTRK3.
Cellular Location	Cytoplasm.
Tissue Location	Expressed at a high level in thymus and lung, with a lower level of expression in spleen and liver. Expressed in peripheral blood leukocytes, including T-lymphocytes. Tends to be expressed at lower levels in peripheral blood leukocytes in patients with rheumatoid arthritis.

Background

This gene encodes a protein that plays a major role in the bidirectional stimulation of T and B cells. This protein contains an SH2 domain and a short tail. It associates with the signaling lymphocyte-activation molecule, thereby acting as an inhibitor of this transmembrane protein by blocking the recruitment of the SH2-domain-containing signal-transduction molecule SHP-2 to its docking site. This protein can also bind to other related surface molecules that are expressed on activated T, B and NK cells, thereby modifying signal transduction pathways in these cells. Mutations in this gene cause lymphoproliferative syndrome X-linked type 1 or Duncan disease, a rare immunodeficiency characterized by extreme susceptibility to infection with Epstein-Barr virus, with symptoms including severe mononucleosis and malignant lymphoma. Multiple transcript variants encoding different isoforms have been found for this gene.

References

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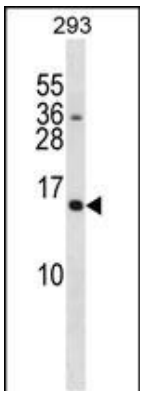
Snow, A.L., et al. J. Clin. Invest. 119(10):2976-2989(2009)
Nagy, N., et al. Proc. Natl. Acad. Sci. U.S.A. 106(29):11966-11971(2009)
Ostrakhovitch, E.A., et al. Cell. Signal. 21(4):540-550(2009)
Schwartzberg, P.L., et al. Nat. Rev. Immunol. 9(1):39-46(2009)

Images



SH2D1A Antibody (C-term) (Cat. #AP19972b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the SH2D1A antibody detected the SH2D1A protein (arrow).