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Goat Anti-SH2D1A / SAP Antibody

Peptide-affinity purified goat antibody

Catalog # AF1985a

Specification

Goat Anti-SH2D1A / SAP Antibody - Product Information

Application	**WB, IP, E**
Primary Accession	O60880
Other Accession	NP_001108409, 4068
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**14187**

Goat Anti-SH2D1A / SAP Antibody - 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

Dilution
WB~~1:1000
IP~~N/A
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-SH2D1A / SAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SH2D1A / SAP Antibody - 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.

Goat Anti-SH2D1A / SAP 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

Goat Anti-SH2D1A / SAP Antibody - Images

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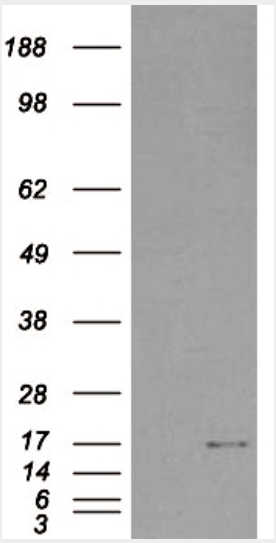
AF1985a staining (0.3 µg/ml) of Human Thymus lysate (RIPA buffer, 30 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



HEK293 overexpressing SH2D1A (RC204723) and probed with AF1985a (mock transfection in first lane), tested by Origene.

Goat Anti-SH2D1A / SAP Antibody - 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.

Goat Anti-SH2D1A / SAP Antibody - References

Customised molecular diagnosis of primary immune deficiency disorders in New Zealand: an efficient strategy for a small developed country. Ameratunga R, et al. N Z Med J, 2009 Oct 9. PMID 19859091.
Restimulation-induced apoptosis of T cells is impaired in patients with X-linked lymphoproliferative disease caused by SAP deficiency. Snow AL, et al. J Clin Invest, 2009 Oct. PMID 19759517.
The proapoptotic function of SAP provides a clue to the clinical picture of X-linked lymphoproliferative disease. Nagy N, et al. Proc Natl Acad Sci U S A, 2009 Jul 21. PMID 19570996.
SAP binds to CD22 and regulates B cell inhibitory signaling and calcium flux. Ostrakhovitch EA, et al. Cell Signal, 2009 Apr. PMID 19150402.
SLAM receptors and SAP influence lymphocyte interactions, development and function. Schwartzberg PL, et al. Nat Rev Immunol, 2009 Jan. PMID 19079134.