

SH2D1A (FL-128): sc-8333

BACKGROUND

SH2D1A, also SH2 domain protein 1A, SAP and CD150/SLAM (signaling lymphocyte activation molecule)-associated protein, influences signaling pathways involving SLAM molecules at the interface between T and B cells. SH2D1A modulates SLAM by blocking the recruitment of tyrosine phosphatase SHP2 to the phosphorylated cytoplasmic domain of SLAM. SLAM activation mediates expansion of activated T cells during immune responses, induces production of interferon- γ and changes the functional profile of subsets of T cells. SH2D1A is a hydrophilic, 128 amino acid protein that is 96% homologous to the mouse protein in both SH2 and tail domains. SH2D1A is present in all major subsets of T cells, including CD4⁺, CD45RO⁺, CD45RA⁺ and CD8⁺, but not in B cells. SH2D1A can interact via an SH2 domain with a motif (TIYXXV) present in the cytoplasmic tail of cell-surface receptors SLAM (CD150), CD84, CD229 (LY9) and CD244 (2B4).

CHROMOSOMAL LOCATION

Genetic locus: SH2D1A (human) mapping to Xq25; Sh2d1a (mouse) mapping to X A4.

SOURCE

SH2D1A (FL-128) is a rabbit polyclonal antibody raised against amino acids 1-128 representing full length SH2D1A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SH2D1A (FL-128) is recommended for detection of SH2D1A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SH2D1A (FL-128) is also recommended for detection of SH2D1A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SH2D1A siRNA (h): sc-40819, SH2D1A siRNA (m): sc-40820, SH2D1A shRNA Plasmid (h): sc-40819-SH, SH2D1A shRNA Plasmid (m): sc-40820-SH, SH2D1A shRNA (h) Lentiviral Particles: sc-40819-V and SH2D1A shRNA (m) Lentiviral Particles: sc-40820-V.

Molecular Weight of SH2D1A: 16 kDa.

Positive Controls: SH2D1A (h): 293T Lysate: sc-174562, Jurkat whole cell lysate: sc-2204 or mouse thymus extract: sc-2406.

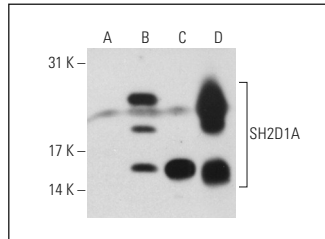
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

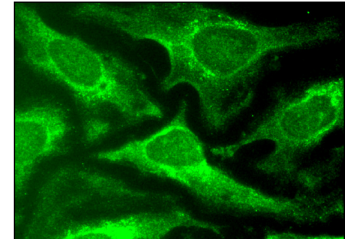
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



SH2D1A (FL-128): sc-8333. Western blot analysis of SH2D1A expression in non-transfected 293T: sc-117752 (A), human SH2D1A transfected 293T: sc-174562 (B) and Jurkat (C) whole cell lysates and mouse thymus tissue extract (D).



SH2D1A (FL-128): sc-8333. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Nakamura, H., et al. 2001. Abnormal T cell receptor signal transduction of CD4 TH cells in X-linked lymphoproliferative syndrome. *J. Immunol.* 167: 2657-2665.
- Pasquinelli, V., et al. 2004. Expression of signaling lymphocyte activation molecule-associated protein interrupts IFN-gamma production in human tuberculosis. *J. Immunology.* 172: 1177-1185.
- Quiroga, M.F., et al. 2004. Activation of signaling lymphocyte activation molecule triggers a signaling cascade that enhances Th1 responses in human intracellular infection. *J. Immunol.* 173: 4120-4129.
- Vacca, P., et al. 2006. Analysis of natural killer cells isolated from human decidua: Evidence that 2B4 (CD244) functions as an inhibitory receptor and blocks NK-cell function. *Blood* 108: 4078-4085.
- McCausland, M.M., et al. 2007. SAP regulation of follicular helper CD4 T cell development and humoral immunity is independent of SLAM and Fyn kinase. *J. Immunol.* 178: 817-828.
- Sánchez-Espiridión, B., et al. 2009. A TaqMan low-density array to predict outcome in advanced Hodgkin's lymphoma using paraffin-embedded samples. *Clin. Cancer Res.* 15: 1367-1375.
- Proust, R., et al. 2012. The adaptor protein SAP directly associates with CD3 ζ chain and regulates T cell receptor signaling. *PLoS ONE* 7: e43200.

MONOS
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Try **SH2D1A (A-8): sc-398118** or **SH2D1A (1D12): sc-53859**, our highly recommended monoclonal alternatives to SH2D1A (FL-128).