

SH2D1A (N-18): sc-8638

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).

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

SH2D1A (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SH2D1A of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-8638 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SH2D1A (N-18) 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), 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 (N-18) 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: Jurkat whole cell lysate: sc-2204 or mouse thymus extract: sc-2406.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **SH2D1A (A-8): sc-398118** or **SH2D1A (1D12): sc-53859**, our highly recommended monoclonal alternatives to SH2D1A (N-18).