

SPA-1 (E-20): sc-23030

BACKGROUND

The SPA-1 (signal-induced proliferation-associated gene-1) protein is a principal Rap1 GTPase-activating protein in the hematopoietic progenitors and peripheral T cells. The SPA-1 gene is normally expressed in fetal and adult lymphohematopoietic tissues. Various types of mitogenic stimulation increase SPA-1 mRNA expression in normal lymphocytes. SPA-1 disrupts LFA-1-ICAM1-mediated adhesive interactions and subsequent T cell-receptor triggering and IL-2 production, possibly through inhibition of RAP1. Mice that are deficient for the SPA-1 gene develop age-dependent progression of T cell immunodeficiency followed by a spectrum of late onset myeloproliferative disorders, mimicking human chronic myeloid leukemia. SPA-1 also directly binds to AQP2 and plays a role in regulating AQP2 trafficking to the apical membrane.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIPA1 (human) mapping to 11q13.1; Sipa1 (mouse) mapping to 19 A.

SOURCE

SPA-1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SPA-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23030 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPA-1 (E-20) is recommended for detection of SPA-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

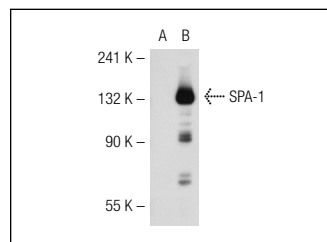
SPA-1 (E-20) is also recommended for detection of SPA-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SPA-1 siRNA (h): sc-45418, SPA-1 siRNA (m): sc-45419, SPA-1 shRNA Plasmid (h): sc-45418-SH, SPA-1 shRNA Plasmid (m): sc-45419-SH, SPA-1 shRNA (h) Lentiviral Particles: sc-45418-V and SPA-1 shRNA (m) Lentiviral Particles: sc-45419-V.

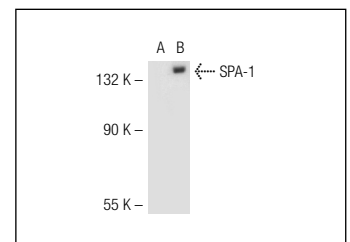
Molecular Weight of SPA-1: 130 kDa.

Positive Controls: SPA-1 (m): 293T Lysate: sc-123727, SPA-1 (h): 293T Lysate: sc-111824 or HeLa whole cell lysate: sc-2200.

DATA



SPA-1 (E-20): sc-23030. Western blot analysis of SPA-1 expression in non-transfected: sc-117752 (A) and mouse SPA-1 transfected: sc-111824 (B) 293T whole cell lysates.



SPA-1 (E-20): sc-23030. Western blot analysis of SPA-1 expression in non-transfected: sc-117752 (A) and mouse SPA-1 transfected: sc-123727 (B) 293T whole cell lysates.

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.

PROTOCOLS

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