

SPEC1 (L-13): sc-160834

BACKGROUND

Rho GTPases are molecular switches that regulate many essential cellular processes, including Actin dynamics, cell adhesion, cell-cycle progression and transcription. Cdc42, a small GTPase, regulates Actin polymerization, elongation of cell shape and cell signaling through interactions with many different downstream effector proteins, most of which contain a Cdc42-binding motif known as a CRIB domain. SPEC1 (small protein effector 1 of Cdc42), also known as CDC42SE1 (Cdc42 small effector 1) or SCIP1, is a 79 amino acid cytoplasmic protein that may participate in the organization of the Actin cytoskeleton by acting downstream of Cdc42, thereby inducing Actin filament assembly and inducing cell shape changes. SPEC1 may also be involved in Cdc42-mediated F-Actin accumulation at the immunological synapse of activated T-cells and may function in early contractile events during phagocytosis in macrophages. Containing a CRIB domain and a member of the Cdc42SE/SPEC family, SPEC1 is widely expressed and exists as two alternatively spliced isoforms.

REFERENCES

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- Ching, K.H., et al. 2007. Biochemical characterization of distinct regions of SPEC molecules and their role in phagocytosis. *Exp. Cell Res.* 313: 10-21.
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CHROMOSOMAL LOCATION

Genetic locus: CDC42SE1 (human) mapping to 1q21.3; Cdc42se1 (mouse) mapping to 3 F2.1.

SOURCE

SPEC1 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPEC1 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-160834 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPEC1 (L-13) is recommended for detection of SPEC1 isoform α 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); non cross-reactive with SPEC1 isoform β ; non cross-reactive with SPEC2.

Suitable for use as control antibody for SPEC1 siRNA (h): sc-78876, SPEC1 siRNA (m): sc-153734, SPEC1 shRNA Plasmid (h): sc-78876-SH, SPEC1 shRNA Plasmid (m): sc-153734-SH, SPEC1 shRNA (h) Lentiviral Particles: sc-78876-V and SPEC1 shRNA (m) Lentiviral Particles: sc-153734-V.

Molecular Weight of SPEC1: 8 kDa.

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.

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.



Try **SPEC1 (E-2): sc-514978**, our highly recommended monoclonal alternative to SPEC1 (L-13).