BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP10 (Rho GTPase activating protein 10), also known as GRAF2, PSGAP or PS-GAP, is a 786 amino acid cytoplasmic cytoskeletal Rho-GTPase activating protein that is expressed at high levels in heart and skeletal muscle. ARHGAP10 regulates caspase-activated γPAK by inhibiting the protein kinase activity and localization of γPAK from the nucleus to the perinuclear region. The GAP domain of ARHGAP10 has GAP activity for small GTPases RhoA and Cdc42. ARHGAP10 converts these small GTPases to an inactive GDP-bound state. ARHGAP10 is essential for PTKB2 regulation of cytoskeletal organization via Rho family GTPases.

REFERENCES


CHROMOSOMATIC LOCATION

Genetic locus: ARHGAP10 (human) mapping to 4q31.23; ARHGAP10 (mouse) mapping to 8 C1.

SOURCE

ARHGAP10 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ARHGAP10 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-160141 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ARHGAP10 (N-13) is recommended for detection of ARHGAP10 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); non cross-reactive with other ARHGAP family members.

ARHGAP10 (N-13) is also recommended for detection of ARHGAP10 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for ARHGAP10 siRNA (h): sc-89197, ARHGAP10 siRNA (m): sc-141200, ARHGAP10 shRNA Plasmid (h): sc-89197-SH, ARHGAP10 shRNA Plasmid (m): sc-141200-SH, ARHGAP10 shRNA (h) Lentiviral Particles: sc-89197-V and ARHGAP10 shRNA (m) Lentiviral Particles: sc-141200-V.

Molecular Weight of ARHGAP10: 89 kDa.

Positive Controls: HISM cell lysate: sc-2229.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA

ARHGAP10 (N-13): sc-160141. Western blot analysis of ARHGAP10 expression in HISM whole cell lysate.

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.