

# RASGEF1C (S-13): sc-107994

## BACKGROUND

The Ras superfamily of GTPases can be subdivided into the Ras, Rho/Rac, Sar, Rab, ARF and Ran subfamilies and controls multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. The Ras superfamily of GTPases function as regulated switches that toggle between a biologically active GTP-bound and an inactive GDP-bound form. This activation is catalyzed by guanine nucleotide exchange factors (GEFs). The RASGEF family of GEFs is highly conserved and the genes encoding the members of this family are present in organisms ranging from nematodes to humans. RASGEF1C (RasGEF domain family member 1C) is a 466 amino acid GEF that contains 2 RasGEF domains, one at the N-terminus and one at the C-terminus. Due to alternative splicing events, two isoforms exist for RASGEF1C.

## REFERENCES

1. Bourne, H.R., et al. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. *Nature* 348: 125-132.
2. Boguski, M.S. and McCormick, F. 1993. Proteins regulating Ras and its relatives. *Nature* 366: 643-654.
3. Whitehead, I.P., et al. 1996. Expression cloning of Isc, a novel oncogene with structural similarities to the Dbl family of guanine nucleotide exchange factors. *J. Biol. Chem.* 271: 18643-18650.
4. Zohn, I.M., et al. 1998. Rho family proteins and Ras transformation: the RHOad less traveled gets congested. *Oncogene* 17: 1415-1438.
5. Epting, D., et al. 2007. Expression of RASGEF1B in zebrafish. *Gene Expr. Patterns* 7: 389-395.

## CHROMOSOMAL LOCATION

Genetic locus: RASGEF1C (human) mapping to 5q35.3; Rasgef1c (mouse) mapping to 11 B1.2.

## SOURCE

RASGEF1C (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RASGEF1C 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-107994 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

RASGEF1C (S-13) is recommended for detection of RASGEF1C 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 other RASGEF family members.

RASGEF1C (S-13) is also recommended for detection of RASGEF1C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RASGEF1C siRNA (h): sc-92003, RASGEF1C siRNA (m): sc-152709, RASGEF1C shRNA Plasmid (h): sc-92003-SH, RASGEF1C shRNA Plasmid (m): sc-152709-SH, RASGEF1C shRNA (h) Lentiviral Particles: sc-92003-V and RASGEF1C shRNA (m) Lentiviral Particles: sc-152709-V.

Molecular Weight of RASGEF1C: 53 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.

## RESEARCH USE

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