

GEFT (S-16): sc-161639

BACKGROUND

GEFT (guanine nucleotide exchange factor GEFT), also known as p63RhoGEF or Rho A/Rac/Cdc42 exchange factor, is a 580 amino acid cytoplasmic protein that is highly expressed in excitable tissues such as brain, heart and muscle, and weakly expressed in small intestine, colon, liver, placenta and lung. GEFT may play a role in Actin cytoskeleton reorganization in different tissues since its activation induces formation of Actin stress fibers. GEFT works as a guanine nucleotide exchange factor for the Rho family of small GTPases and links specifically to $G_{\alpha 0}/11$ -coupled receptors in Rho A activation. GEFT is an important regulator of processes involved in axon and dendrite formation. Involved in skeletal myogenesis, GEFT seems to be an exchange factor primarily for Rac 1 in neurons. Existing as two alternatively spliced variants, GEFT contains a DH (DBL-homology) domain and a PH domain.

REFERENCES

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- Smith, T.K., et al. 2008. BVES directly interacts with GEFT, and controls cell shape and movement through regulation of Rac1/Cdc42 activity. *Proc. Natl. Acad. Sci. USA* 105: 8298-8303.

CHROMOSOMAL LOCATION

Genetic locus: ARHGGEF25 (human) mapping to 12q13.3; Arhgef25 (mouse) mapping to 10 D3.

SOURCE

GEFT (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GEFT of human origin.

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-161639 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GEFT (S-16) is recommended for detection of GEFT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

GEFT (S-16) is also recommended for detection of GEFT in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GEFT siRNA (h): sc-95849, GEFT siRNA (m): sc-145379, GEFT shRNA Plasmid (h): sc-95849-SH, GEFT shRNA Plasmid (m): sc-145379-SH, GEFT shRNA (h) Lentiviral Particles: sc-95849-V and GEFT shRNA (m) Lentiviral Particles: sc-145379-V.

Molecular Weight of GEFT: 63 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) 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.

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.