



p-Ras-GRF1 (Ser 929): sc-130215

BACKGROUND

A critical step in signal transduction responses to stimulation of cell surface receptors by their ligands involves the accumulation of Ras proteins in their active GTP bound state. To reach their active GTP bound state, Ras proteins must first release bound GDP, a rate limiting step mediated by a guanine nucleotide releasing factor (GRF). The mammalian Ras p21 GRF protein has been designated Ras-GRF1 (also known as Ras-GRF1 p140). Ras-GRF1 accelerates release of GDP from H- and N-Ras p21 protein *in vitro*, but not from the related Ral A or Cdc42Hs GTP binding proteins. Of interest, a region mapping within the amino-terminal domain of Ras-GRF1 is similar to both the human breakpoint cluster protein Bcr and the Dbl proto-oncogene product, a guanine nucleotide-releasing factor for Cdc42Hs. Ras-GRF2 p135 has also been identified. Ras-GRF2 p135 is highly homologous to Ras-GRF1 and the two proteins appear to function in a similar manner. Human Ras-GRF1 is subject to phosphorylation at specific amino acid residues, including Ser 929.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RASGRF1 (human) mapping to 15q25.1.

SOURCE

p-Ras-GRF1 (Ser 929) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 929 of Ras-GRF1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Ras-GRF1 (Ser 929) is recommended for detection of Ser 929 phosphorylated Ras-GRF1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ras-GRF1 siRNA (h): sc-41732, Ras-GRF1 shRNA Plasmid (h): sc-41732-SH and Ras-GRF1 shRNA (h) Lentiviral Particles: sc-41732-V.

Molecular Weight of p-Ras-GRF1: 140 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

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.