

GRB14 (N-19): sc-6103

BACKGROUND

Many growth factors function by binding receptors with intrinsic tyrosine kinase activity. Signaling by such receptors involves a series of intermediates characterized by SH2 domains that bind tyrosine phosphorylated receptors by a direct interaction between the SH2 domain and specific phospho-tyrosine-containing receptor sequences. GRB7, a SH2 domain protein, has a single SH2 domain at its C-terminal, a central region with similarity to Ras GAP and a proline-rich N-terminus. A related SH2 domain-containing protein, GRB10, exhibits a high degree of homology with GRB7. GRB10 undergoes serine but not tyrosine phosphorylation in response to EGF treatment, but appears to bind to the EGF receptor poorly. An additional member of the GRB7 family, designated GRB14, contains a Pleckstrin homology domain in its central region and a carboxy-terminal SH2 domain. GRB14 mRNA is expressed at high levels in a broad range of tissues including liver, kidney, pancreas, testis, ovary, heart and skeletal muscle. Expression of the GRB14 protein in breast carcinomas is strongly correlated with estrogen receptor positivity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRB14 (human) mapping to 2q24.3; Grb14 (mouse) mapping to 2 C1.3.

SOURCE

GRB14 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GRB14 of human origin.

STORAGE

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

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-6103 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRB14 (N-19) is recommended for detection of GRB14 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).

GRB14 (N-19) is also recommended for detection of GRB14 in additional species, including bovine.

Suitable for use as control antibody for GRB14 siRNA (h): sc-40963, GRB14 siRNA (m): sc-40964, GRB14 shRNA Plasmid (h): sc-40963-SH, GRB14 shRNA Plasmid (m): sc-40964-SH, GRB14 shRNA (h) Lentiviral Particles: sc-40963-V and GRB14 shRNA (m) Lentiviral Particles: sc-40964-V.

Molecular Weight of GRB14: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

SELECT PRODUCT CITATIONS

- Reilly, J.F., Mickey, G. and Maher, P.A. 2000. Association of fibroblast growth factor receptor 1 with the adaptor protein GRB14. Characterization of a new receptor binding partner. *J. Biol. Chem.* 275: 7771-7778.
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RESEARCH USE

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