

GRB7 (H-70): sc-13954

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 the phosphotyrosine-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. GRB7 maps to the region on mouse chromosome 11 containing the Neu gene. This region of mouse chromosome 11 is syntenic to an area of human chromosome 17q that is frequently amplified in breast cancer. Moreover, GRB7 is amplified and over-expressed in breast cancer and is found in a complex with Neu gp185.

CHROMOSOMAL LOCATION

Genetic locus: GRB7 (human) mapping to 17q12; Grb7 (mouse) mapping to 11 D.

SOURCE

GRB7 (H-70) is a rabbit polyclonal antibody raised against amino acids 1-70 of GRB7 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.

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.

APPLICATIONS

GRB7 (H-70) is recommended for detection of GRB7 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).

Suitable for use as control antibody for GRB7 siRNA (h): sc-35510, GRB7 siRNA (m): sc-35511, GRB7 shRNA Plasmid (h): sc-35510-SH, GRB7 shRNA Plasmid (m): sc-35511-SH, GRB7 shRNA (h) Lentiviral Particles: sc-35510-V and GRB7 shRNA (m) Lentiviral Particles: sc-35511-V.

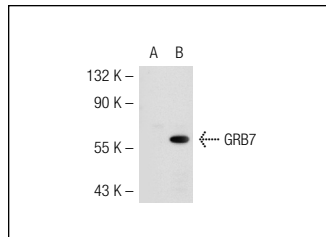
Molecular Weight of GRB7: 65 kDa.

Positive Controls: F9 cell lysate: sc-2245, GRB7 (m): 293T Lysate: sc-125418 or A-431 + EGF whole cell lysate: sc-2202.

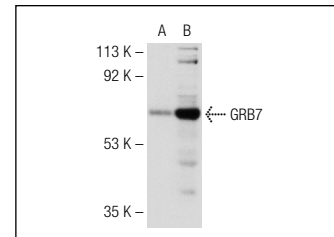
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GRB7 (H-70): sc-13954. Western blot analysis of GRB7 expression in non-transfected: sc-117752 (A) and mouse GRB7 transfected: sc-125418 (B) 293T whole cell lysates.



GRB7 (H-70): sc-13954. Western blot analysis of GRB7 expression in untreated (A) and EGF-treated (B) A-431 whole cell lysates.

SELECT PRODUCT CITATIONS

- Kao, J., et al. 2006. RNA interference-based functional dissection of the 17q12 amplicon in breast cancer reveals contribution of coamplified genes. *Genes Chromosomes Cancer* 45: 761-769.
- Itoh, S., et al. 2007. Role of growth factor receptor bound protein 7 in hepatocellular carcinoma. *Mol. Cancer Res.* 5: 667-673.
- Siamakpour-Reihani, S., et al. 2009. The cell migration protein GRB7 associates with transcriptional regulator FHL-2 in a GRB7 phosphorylation-dependent manner. *J. Mol. Recognit.* 22: 9-17.
- Ambaye, N.D., et al. 2011. Uptake of a cell permeable G7-18NATE construct into cells and binding with the Grb-7-SH2 domain. *Biopolymers* 96: 181-188.
- Siamakpour-Reihani, S., et al. 2011 Mar-Apr. Grb7 binds to Hax-1 and undergoes an intramolecular domain association that offers a model for Grb7 regulation. *J. Mol. Recognit.* 24: 314-321.


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Try **GRB7 (A-12): sc-376069** or **GRB7 (B-9): sc-373982**, our highly recommended monoclonal alternatives to GRB7 (H-70).