

# GRB7 (N-20): sc-607

## 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 overexpressed 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 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus 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.

Blocking peptide available for competition studies, sc-607 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GRB7 (N-20) 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), immunohistochemistry (including paraffin-embedded sections) (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: GRB7 (m): 293T Lysate: sc-125418, F9 cell lysate: sc-2245 or A-431 + EGF whole cell lysate: sc-2202.

## RESEARCH USE

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

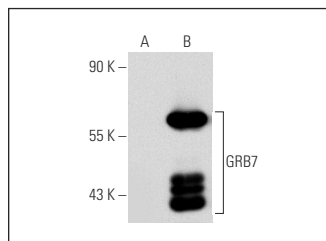
## PROTOCOLS

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

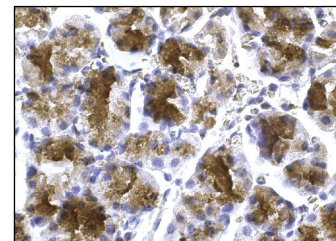
## STORAGE

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

## DATA



GRB7 (N-20): sc-607. Western blot analysis of GRB7 expression in non-transfected: sc-117752 (A) and mouse GRB7 transfected: sc-125418 (B) 293T whole cell lysates.



GRB7 (N-20): sc-607. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Pandey, A., et al. 1996. Direct association between the Ret receptor tyrosine kinase and the Src homology 2-containing adapter protein Grb7. *J. Biol. Chem.* 271: 10607-10610.
- Jechlinger, M., et al. 2003. Expression profiling of epithelial plasticity in tumor progression. *Oncogene* 22: 7155-7169.
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- Chu, P.Y., et al. 2009. Tyrosine phosphorylation of growth factor receptor-bound protein-7 by focal adhesion kinase in the regulation of cell migration, proliferation, and tumorigenesis. *J. Biol. Chem.* 284: 20215-20226.
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- Giricz, O., et al. 2012. GRB7 is required for triple-negative breast cancer cell invasion and survival. *Breast Cancer Res. Treat.* 133: 607-615.
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Try **GRB7 (A-12): sc-376069** or **GRB7 (B-9): sc-373982**, our highly recommended monoclonal alternatives to GRB7 (N-20).