## SANTA CRUZ BIOTECHNOLOGY, INC.

# Grap (C-19): sc-6100



The Power to Question

## 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 receptor sequences. For instance, the GRB family of proteins lack a defined catalytic activity and are entirely composed of SH2 and SH3 domains. Members include GRB2, GRB7, GRB10 (also referred to as GRB-IR), GRB14 and Grap (for GRB2-related adapter protein). While GRB10 and GRB14 are most close-ly related to GRB7), Grap shares the highest degree of homology with GRB2 exhibiting 59% sequence identity with GRB2. The Grap SH2 domain is capable of binding to the activated stem cell factor receptor, c-Kit and the ery-thropoietin receptor (EpoR). Grap also associates with the Ras guanine nucleotide exchange factor Sos 1 via its amino terminal SH3 domain.

### REFERENCES

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- Daly, R.J., Sanderson, G.M., Janes, P.W., and Sutherland, R.L. 1996. Cloning and characterization of GRB14, a novel member of the GRB7 gene family. J. Biol. Chem. 271: 12502-12510.
- Feng, G.S., Ouyang, Y.B., Hu, D.P., Shi, Z.Q., Gentz, R., and Ni, J. 1996. Grap is a novel SH3-SH2-SH3 adaptor protein that couples tyrosine kinases to the Ras pathway. J. Biol. Chem. 271: 12129-12132.

#### SOURCE

Grap (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GRB2-related adapter protein (Grap) of human origin.

### PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6100 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Grap (C-19) is recommended for detection of Grap of human and, to a lesser extent, mouse and rat 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).

Grap (C-19) is also recommended for detection of Grap in additional species, including equine and porcine.

Suitable for use as control antibody for Grap siRNA (h): sc-40960, Grap shRNA Plasmid (h): sc-40960-SH and Grap shRNA (h) Lentiviral Particles: sc-40960-V.

## **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.



Grap (C-19): sc-6100. Western blot analysis of Grap expression in HeLa whole cell lysate.

#### **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.