SANTA CRUZ BIOTECHNOLOGY, INC.

Gab 3 (H-300): sc-33568

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Gab (GRB2-associated binder)/DOS ("Daughter of Sevenless") (Gab) family of adaptor proteins function as molecular scaffolds that mediate protein recrutiment to RTKs. Cytokine/growth factor triggering of protein tyrosine kinase receptors (RTKs) initiates signaling cascades that progress to the nucleus where signals for activation, proliferation and differentiation occur. This scaffolding mechanism represents a critical link in cytokine/growth factor signaling routes. Gab1-3 contain pleckstrin homology and potential binding sites for SH2 and SH3 domain-containing proteins. The recruitment of signaling partners to Gab family members is phosphorylation dependent. Insulin receptor and EGF-receptor signaling are among the cascades that rely on Gab family members to elicit a nuclear response to an extracellular stimulus. The human Gab3 gene maps to chromosome Xq28 and encodes a 586 amino acid protein.

REFERENCES

1. Araki, E., et al. 1994. Alternative pathway of Insulin signaling in mice with targeted disruption of the IRS-1 gene. Nature 372: 186-190.
2. Holgado-Madruga, M., et al. 1996. A Grb2-associated docking protein in EGF- and Insulin-receptor signalling. Nature 379: 560-564.
3. Zhao, C., et al. 1999. Gab 2, a new pleckstrin homology domain-containing adapter protein, acts to uncouple signaling from ERK kinase to Elk-1. J. Biol. Chem. 274: 19649-19654.
4. Lock, L.S., et al. 2000. Identification of an atypical GRB2 carboxyl-terminal SH3 domain binding site in Gab docking proteins reveals GRB2-dependent and -independent recruitment of Gab1 to receptor tyrosine kinases. J. Biol. Chem. 275: 31536-31545.
5. Wolf, I., et al. 2002. Gab3, a new DOS/Gab family member, facilitates macrophage differentiation. Mol. Cell. Biol. 22: 231-244.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604439. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: GAB3 (human) mapping to Xq28; Gab3 (mouse) mapping to X A7.3.

SOURCE

Gab 3 (H-300) is a rabbit polyclonal antibody raised against amino acids 101-400 mapping within an internal region of Gab 3 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.

APPLICATIONS

Gab 3 (H-300) is recommended for detection of Gab 3 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 Gab 3 siRNA (h): sc-40608, Gab 3 siRNA (m): sc-40609, Gab 3 shRNA Plasmid (h): sc-40608-SH, Gab 3 shRNA Plasmid (m): sc-40609-SH, Gab 3 shRNA (h) Lentiviral Particles: sc-40608-V and Gab 3 shRNA (m) Lentiviral Particles: sc-40609-V.

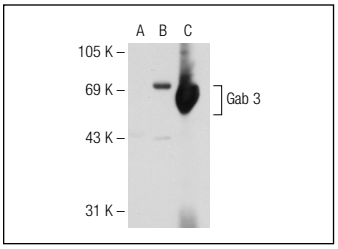
Molecular Weight of Gab 3: 75 kDa.

Positive Controls: Gab 3 (h): 293T Lysate: sc-128670, K-562 + GM-CSF cell lysate or rat spleen extract: sc-2397.

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



Gab 3 (H-300): sc-33568. Western blot analysis of Gab 3 expression in non-transfected: sc-117752 (**A**) and human Gab 3 transfected: sc-128670 (**B**) 293T whole cell lysates and rat spleen tissue extract (**C**).

RESEARCH USE

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