

Gab 1 (V-15): sc-33891

BACKGROUND

Growth factor triggering of protein tyrosine kinase receptors induces signals that cascade to the nucleus, activating mitogenic as well as other responses. Critical components of this process include adapter proteins such as Shc, IRS-1 and Gab 1 (GRB-associated binder-1) that lack detectable catalytic activity. These are immediate substrates of receptor tyrosine kinase activity and serve to link activated receptors to downstream signaling components. Whereas Shc has been implicated in signaling by diverse receptor families, IRS-1 serves primarily as the major Insulin receptor substrate. Shc and Gab 1 also participate in Insulin signaling by linking the Insulin receptor to Ras by forming complexes with GRB2 (another adapter protein) and Sos independently of IRS-1. Gab 1 is also thought to be involved in the EGF receptor signaling pathway.

REFERENCES

- McGlade, J., et al. 1992. Shc proteins are phosphorylated and regulated by the v-Src and v-Fps protein-tyrosine kinase. *Proc. Natl. Acad. Sci. USA* 89: 8869-8873.
- Pellicci, G., et al. 1992. A novel transforming protein (SHC) with an SH2 domain is implicated in mitogenic signal transduction. *Cell* 70: 93-104.
- Lee, C.H., et al. 1993. Nck associates with the SH2 domain-docking protein IRS-1 in Insulin-stimulated cells. *Proc. Natl. Acad. Sci. USA* 90: 11713-11717.
- Ravichandran, K.S., et al. 1993. Interaction of Shc with the zeta chain of the T cell receptor upon T cell activation. *Science* 262: 902-905.
- Myers, M.G. Jr., et al. 1994. Role of IRS-1-GRB-2 complexes in Insulin signaling. *Mol. Cell. Biol.* 14: 3577-3587.
- Tamemoto, K., et al. 1994. Insulin resistance and growth retardation in mice lacking Insulin receptor-substrate 1. *Nature* 372: 182-186.

CHROMOSOMAL LOCATION

Genetic locus: GAB1 (human) mapping to 4q31.21; Gab1 (mouse) mapping to 8 C2.

SOURCE

Gab 1 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Gab 1 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-33891 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Gab 1 (V-15) is recommended for detection of Gab 1 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). Gab 1 (V-15) is also recommended for detection of Gab 1 in additional species, including porcine and avian.

Suitable for use as control antibody for Gab 1 siRNA (h): sc-35431, Gab 1 siRNA (m): sc-35432, Gab 1 shRNA Plasmid (h): sc-35431-SH, Gab 1 shRNA Plasmid (m): sc-35432-SH, Gab 1 shRNA (h) Lentiviral Particles: sc-35431-V and Gab 1 shRNA (m) Lentiviral Particles: sc-35432-V.

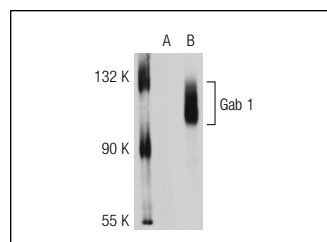
Molecular Weight of Gab 1: 110-115 kDa.

Positive Controls: Gab 1 (h): 293T Lysate: sc-111467, Gab 1 (m): 293T Lysate: sc-120377 or HeLa whole cell lysate: sc-2200.

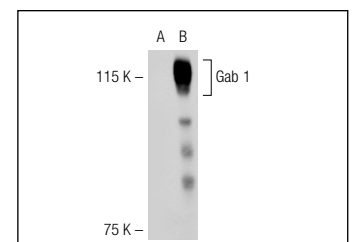
RECOMMENDED SECONDARY REAGENTS

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) 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™ Mounting Medium: sc-24941.

DATA



Gab 1 (V-15): sc-33891. Western blot analysis of Gab 1 expression in non-transfected: sc-117752 (A) and human Gab 1 transfected: sc-111467 (B) 293T whole cell lysates.



Gab 1 (V-15): sc-33891. Western blot analysis of Gab 1 expression in non-transfected: sc-117752 (A) and mouse Gab 1 transfected: sc-120377 (B) 293T whole cell lysates.

RESEARCH USE

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



Try **Gab 1 (H-7): sc-133191** or **Gab 1 (G-9): sc-271848**, our highly recommended monoclonal alternatives to Gab 1 (V-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Gab 1 (H-7): sc-133191**.