

Gab 1 (G-9): sc-271848

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

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3. Ravichandran, K.S., et al. 1993. Interaction of Shc with the ζ chain of the T cell receptor upon T cell activation. *Science* 262: 902-905.
4. 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.
5. Myers, M.G., Jr., et al. 1994. Role of IRS-1-GRB-2 complexes in Insulin signaling. *Mol. Cell. Biol.* 14: 3577-3587.
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7. Araki, E., et al. 1994. Alternative pathway of Insulin signaling in mice with targeted disruption of the IRS-1 gene. *Nature* 372: 186-190.
8. Holgado-Madruga, M., et al. 1996. A GRB2-associated docking protein in EGF- and Insulin-receptor signalling. *Nature* 379: 560-564.

CHROMOSOMAL LOCATION

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

SOURCE

Gab 1 (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 665-690 at the C-terminus of Gab 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271848 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Gab 1 (G-9) is recommended for detection of Gab 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 (G-9) is also recommended for detection of Gab 1 in additional species, including canine and bovine.

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.

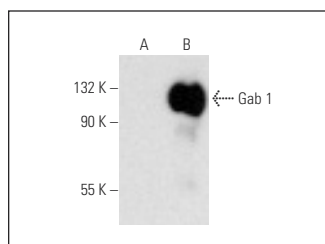
Molecular Weight of Gab 1: 110-115 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or Gab 1 (m): 293T Lysate: sc-120377.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Gab 1 (G-9): sc-271848. 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.

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.