

Gab 1 (H-198): sc-9049

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 protein 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.

CHROMOSOMAL LOCATION

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

SOURCE

Gab 1 (H-198) is a rabbit polyclonal antibody raised against amino acids 119-316 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.

APPLICATIONS

Gab 1 (H-198) 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), 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).

Gab 1 (H-198) is also recommended for detection of Gab 1 in additional species, including equine, canine, bovine and porcine.

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

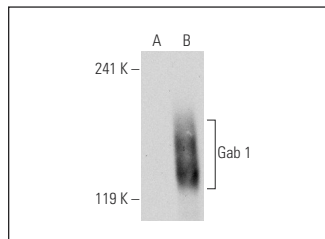
STORAGE

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

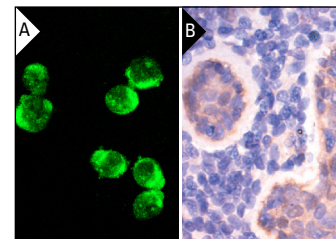
RESEARCH USE

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

DATA



Gab 1 (H-198): sc-9049. 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 (H-198): sc-9049. Immunofluorescence staining of methanol-fixed K-562 cells (A) and immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor (B) showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Chen, X., et al. 2002. Cholesterol depletion from the plasma membrane triggers ligand-independent activation of the epidermal growth factor receptor. *J. Biol. Chem.* 277: 49631-49637.
- Caron, C., et al. 2009. Non-redundant roles of the Gab1 and Gab2 scaffolding adapters in VEGF-mediated signalling, migration, and survival of endothelial cells. *Cell. Signal.* 21: 943-953.
- Chan, P.C., et al. 2010. Differential phosphorylation of the docking protein Gab1 by c-Src and the hepatocyte growth factor receptor regulates different aspects of cell functions. *Oncogene* 29: 698-710.
- Moraes, L.A., et al. 2010. Platelet endothelial cell adhesion molecule-1 regulates collagen-stimulated platelet function by modulating the association of phosphatidylinositol 3-kinase with Grb-2-associated binding protein-1 and linker for activation of T cells. *J. Thromb. Haemost.* 8: 2530-2541.
- De Rocca Serra-Nédélec, A., et al. 2012. Noonan syndrome-causing SHP2 mutants inhibit Insulin-like growth factor 1 release via growth hormone-induced ERK hyperactivation, which contributes to short stature. *Proc. Natl. Acad. Sci. USA* 109: 4257-4262.
- Deng, R., et al. 2015. Shp2 SUMOylation promotes ERK activation and hepatocellular carcinoma development. *Oncotarget* 6: 9355-9369.
- Buonato, J.M., et al. 2015. EGF augments TGFβ-induced epithelial-mesenchymal transition by promoting SHP2 binding to GAB1. *J. Cell Sci.* 128: 3898-3909.

MONOS
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Try **Gab 1 (H-7): sc-133191** or **Gab 1 (G-9): sc-271848**, our highly recommended monoclonal alternatives to Gab 1 (H-198). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Gab 1 (H-7): sc-133191**.