

girdin (T-13): sc-133371

BACKGROUND

Girdin, also known as CCDC88A (coiled-coil domain-containing protein 88A), APE, GRDN, GIV or HkRP1, is a 1,871 amino acid protein that, via interactions with phosphoinositides, localizes to the cell membrane and to the cytosol. Expressed ubiquitously, girdin functions to enhance the activity of PI 3-kinase-dependent phosphorylation of proteins, such as Akt1, thereby inducing the phosphorylation of downstream protein targets and, ultimately, regulating DNA replication and cellular proliferation. Additionally, girdin is crucial for cell migration and is responsible for both maintaining the structural integrity of the Actin cytoskeleton and for regulating the formation of actin stress fibers. Girdin exists as a homodimer that can itself be phosphorylated—an event that delocalizes girdin from the cell membrane, thus allowing it to participate in cell migration events. Two isoforms of girdin exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: CCDC88A (human) mapping to 2p16.1; Ccdc88a (mouse) mapping to 11 A3.3.

SOURCE

girdin (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of girdin of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133371 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

girdin (T-13) is recommended for detection of girdin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

girdin (T-13) is also recommended for detection of girdin isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for girdin siRNA (h): sc-94984, girdin siRNA (m): sc-145407, girdin shRNA Plasmid (h): sc-94984-SH, girdin shRNA Plasmid (m): sc-145407-SH, girdin shRNA (h) Lentiviral Particles: sc-94984-V and girdin shRNA (m) Lentiviral Particles: sc-145407-V.

Molecular Weight (predicted) of girdin: 200 kDa.

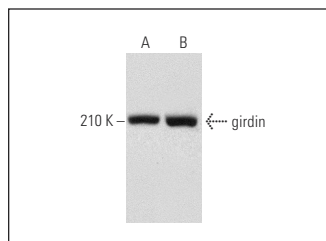
Molecular Weight (observed) of girdin: 210 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

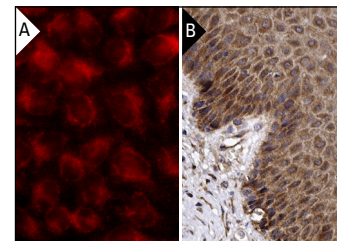
STORAGE

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

DATA



girdin (T-13): sc-133371. Western blot analysis of girdin expression in HeLa (A) and NIH/3T3 (B) whole cell lysates.



girdin (T-13): sc-133371. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing cytoplasmic staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

- Ling, Y., et al. 2011. Clinical implications for girdin protein expression in breast cancer. *Cancer Invest.* 29: 405-410.
- Mittal, Y., et al. 2011. Src homology domain 2-containing protein-tyrosine phosphatase-1 (SHP-1) binds and dephosphorylates G_α-interacting, vesicle-associated protein (GIV)/girdin and attenuates the GIV-phosphatidylinositol 3-kinase (PI3K)-Akt signaling pathway. *J. Biol. Chem.* 286: 32404-32415.
- Lin, C., et al. 2011. Tyrosine phosphorylation of the G_α-interacting protein GIV promotes activation of phosphoinositide 3-kinase during cell migration. *Sci. Signal.* 4: ra64.

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.



Try **girdin (H-6): sc-393757**, our highly recommended monoclonal alternative to girdin (T-13).