

Girdin (Ser-1416), phospho-specific Rabbit Polyclonal

Cat. # GP5791

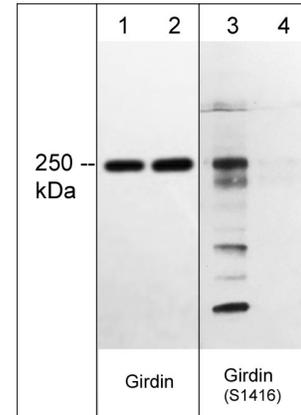
Size 100 µl

Background

Girdin, a member of the CCDC88 (Hook related protein) family, is an actin binding protein involved with cell migration and maintaining cytoskeletal organization. Girdin has conserved domains at the N- and C-terminus that bind microtubules and actin, respectively. It enhances PI3-kinase dependent phosphorylation of proteins, most notably Akt. This same activity can contribute to tumor proliferation, invasion, and metastasis in breast, ovarian, prostate, and pancreatic tissues. Girdin is phosphorylated at three separate locations: Ser-1416, Ser-1674, and Tyr-1764. Ser-1416 is the primary Akt phosphorylation site, while Cyclin-dependent kinases interact with Girdin and phosphorylate Ser-1674. Multiple receptor tyrosine kinases can bind girdin and phosphorylate Tyr-1764.

Background References

Simpson, F. (2005) Traffic. 6(6):442
Jiang, P. (2008) Cancer Res. 1;68(5):1310
Lin, C. (2011) Sci Signal. 4(192): ra64



Western blot image of human A431 cell lysates treated with Calyculin A (lanes 1-4). The blot was treated with lambda phosphatase to dephosphorylate Girdin phosphosites (lanes 2 & 4). The blot was probed with mouse monoclonal anti-Girdin (lanes 1 & 2) or rabbit polyclonal anti-Girdin (Ser-1416), phospho-specific (lanes 3 & 4).

Applications

WB 1:500
ELISA 1:1000

Species Reactivity

Hu, Rt, Ms

Specificity

The antibody was cross-adsorbed to unphosphorylated Girdin (Ser-1416) peptide before affinity purification using phospho-Girdin (Ser-1416) peptide. This antibody detects a 250 kDa* protein on SDS-PAGE immunoblots of human A431 cells stimulated with EGF or calyculin A. These reactivities are not observed after lambda phosphatase treatment to dephosphorylate Girdin.

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Immunogen

Phospho-Girdin (Ser-1416) synthetic peptide (coupled to carrier) corresponding to amino acid residues around serine 1416 in human Girdin. This sequence is identical in rat and mouse Girdin, and has low homology to similar regions in other Girdin family members.

Buffer and Storage

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Related Products

AK6060 Actin & Tubulin Antibody Sampler Kit
AK6340 Akt Phospho-Regulation Antibody Sampler Kit
EK6160 EGFR Phospho-Regulation Antibody Sampler Kit
GP5781 Girdin (Ser-1674), phospho-specific Rabbit Polyclonal
GP5801 Girdin (Tyr-1764), phospho-specific Rabbit Polyclonal

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