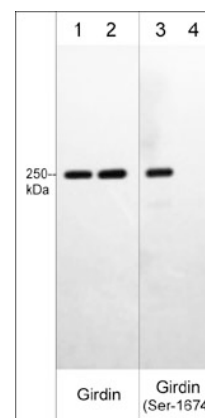


Background

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
 Bhandari, D. et al. (2009) Mol Biol Cell. 20:1324.



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-1674), phospho-specific (lanes 3 & 4).

Applications

WB 1:1000
 ELISA 1:1000

Species Reactivity

Hu, Rt, Ms

Specificity

The antibody was cross-adsorbed to unphosphorylated Girdin (Ser-1674) peptide before affinity purification using phospho-Girdin (Ser-1674) peptide. This antibody detects a 250 kDa* protein on SDS-PAGE immunoblots of human A431 cells stimulated with Calyculin A. This reactivity is not observed after lambda phosphatase treatment to dephosphorylate Girdin.

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

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.

Immunogen

Uniprot ID: Q3V6T2

Phospho-Girdin (Ser-1674) synthetic peptide (coupled to carrier) corresponding to amino acid residues around serine 1674 in human Girdin. This sequence has high homology to 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
 GP5791 Girdin (Ser-1416), phospho-specific Rabbit Polyclonal
 GP5801 Girdin (Tyr-1764), phospho-specific Rabbit Polyclonal

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.