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PRODUCT DATASHEET

Anti-Girdin (Ser-1416), Phosphospecific Antibody

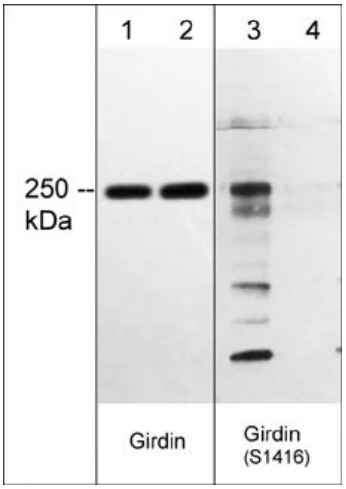
phosphosolutions ANTIBODIES THAT WORK

Product Details

Available Variants	100 µL (SKU:GP5791)
Conjugate	Unconjugated
Isotype	IgG
Gene Name	CCDC88A
Host Species	Rabbit
Format	Antigen Affinity Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, WB
Dilution Ranges	WB: 1:500
Species Reactivity	Human, Mouse, Rat
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.
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.
Molecular Weight	250
Quality Control	Western blots performed on each lot.

Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
UniProt ID	Q3V6T2 UniProt Summary: Bifunctional modulator of guanine nucleotide-binding proteins (G proteins). Acts as a non-receptor guanine nucleotide exchange factor which binds to and activates guanine nucleotide-binding protein G(i) alpha subunits. Also acts as a guanine nucleotide dissociation inhibitor for guanine nucleotide-binding protein G(s) subunit alpha GNAS. Essential for cell migration. Interacts in complex with G(i) alpha subunits with the EGFR receptor, retaining EGFR at the cell membrane following ligand stimulation and promoting EGFR signaling which triggers cell migration. Binding to Gi-alpha subunits displaces the beta and gamma subunits from the heterotrimeric G-protein complex which enhances phosphoinositide 3-kinase (PI3K)-dependent phosphorylation and kinase activity of AKT1/PKB. Phosphorylation of AKT1/PKB induces the phosphorylation of downstream effectors GSK3 and FOXO1/FKHR, and regulates DNA replication and cell proliferation. Binds in its tyrosine-phosphorylated form to the phosphatidylinositol 3-kinase (PI3K) regulatory subunit PIK3R1 which enables recruitment of PIK3R1 to the EGFR receptor, enhancing PI3K activity and cell migration. Plays a role as a key modulator of the AKT-mTOR signaling pathway, controlling the tempo of the process of newborn neuron integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation. Inhibition of G(s) subunit alpha GNAS leads to reduced cellular levels of cAMP and suppression of cell proliferation. Essential for the integrity of the actin cytoskeleton. Required for formation of actin stress fibers and lamellipodia. May be involved in membrane sorting in the early endosome. Plays a role in ciliogenesis and cilium morphology and positioning and this may partly be through regulation of the localization of scaffolding protein CROCC/Rootletin.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
Post Translational Modification Type	Phosphorylated
Post Translational Modification Residue	Ser-1674
NCBI Gene ID	55704

Product Images



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).