

CCDC88A / GIV / Girdin Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS13799**Specification**

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Product Information

Application	WB, IHC-P, IF, E
Primary Accession	Q3V6T2
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	216kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A IF~~1:50~200 E~~N/A

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Additional Information**Gene ID** 55704**Other Names**

Girdin, Akt phosphorylation enhancer, APE, Coiled-coil domain-containing protein 88A, G alpha-interacting vesicle-associated protein, GIV, Girders of actin filament, Hook-related protein 1, HkRP1, CCDC88A

Target/Specificity

Human KIAA1212

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

CCDC88A / GIV / Girdin Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Protein Information**Name** CCDC88A**Function**

Bifunctional modulator of guanine nucleotide-binding proteins (G proteins) (PubMed:19211784, PubMed:27621449). Acts as a non-receptor guanine nucleotide exchange factor which binds to and activates guanine nucleotide-binding protein G(i) alpha subunits (PubMed:19211784, PubMed:21954290, PubMed:21954290, PubMed:21954290).

<http://www.uniprot.org/citations/23509302> target="_blank">23509302, PubMed:25187647). Also acts as a guanine nucleotide dissociation inhibitor for guanine nucleotide-binding protein G(s) subunit alpha GNAS (PubMed:27621449). Essential for cell migration (PubMed:16139227, PubMed:19211784, PubMed:20462955, PubMed:21954290). 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 (PubMed:20462955). 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 (PubMed:19211784). Phosphorylation of AKT1/PKB induces the phosphorylation of downstream effectors GSK3 and FOXO1/FKHR, and regulates DNA replication and cell proliferation (By similarity). 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 (PubMed:21954290). 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 (By similarity). Inhibition of G(s) subunit alpha GNAS leads to reduced cellular levels of cAMP and suppression of cell proliferation (PubMed:27621449). Essential for the integrity of the actin cytoskeleton (PubMed:16139227, PubMed:19211784). Required for formation of actin stress fibers and lamellipodia (PubMed:15882442). May be involved in membrane sorting in the early endosome (PubMed:15882442). 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 (PubMed:27623382).

Cellular Location

Cell membrane; Peripheral membrane protein. Cytoplasm, cytosol. Cytoplasmic vesicle. Cell projection, lamellipodium. Cytoplasm, cytoskeleton, cilium basal body. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Note=Localizes to the cytosol in unstimulated cells while EGF stimulation promotes membrane localization and guanine nucleotide exchange factor activity (PubMed:27864364) Localizes to the cell membrane through interaction with phosphoinositides (PubMed:15882442, PubMed:16139227)

Tissue Location

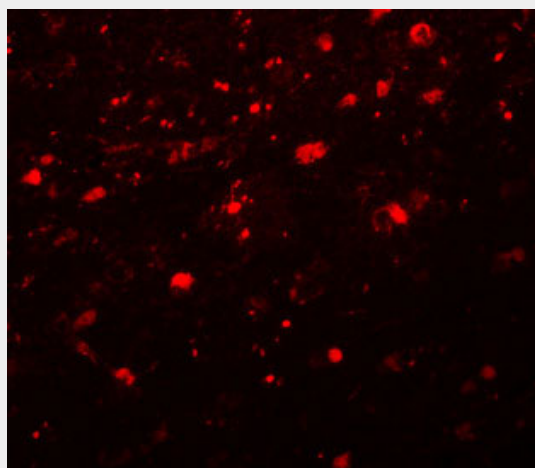
Expressed ubiquitously.

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Protocols

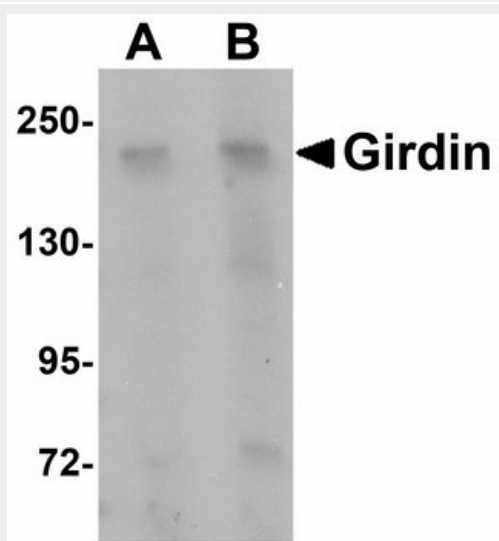
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

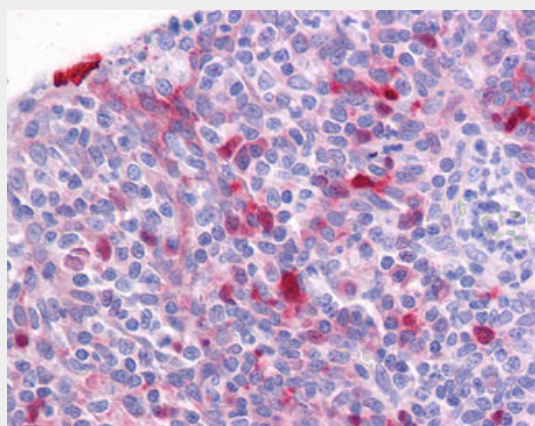
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Images

Immunofluorescence of Girdin in cells with Girdin antibody at 20 ug/ml.



Western blot of Girdin in rat brain tissue lysate with Girdin antibody at (A) 1 and (B) 2 ug/ml.



Anti-Girdin antibody IHC of human tonsil.

CCDC88A / GIV / Girdin Antibody (C-Terminus) - Background

Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation. Enhances phosphoinositide 3-kinase (PI3K)-dependent phosphorylation and kinase activity of AKT1/PKB, but does not possess kinase activity itself. Phosphorylation of AKT1/PKB thereby induces the phosphorylation of downstream effectors GSK3 and FOXO1/FKHR, and regulates DNA replication and cell proliferation (By similarity). Essential for the integrity of the actin cytoskeleton and for cell migration. Required for formation of actin stress fibers and lamellipodia. May be involved in membrane sorting in the early endosome.

CCDC88A / GIV / Girdin Antibody (C-Terminus) - References

Enomoto A.,et al.Dev. Cell 9:389-402(2005).
Simpson F.,et al.Traffic 6:442-458(2005).
Anai M.,et al.Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 434:724-731(2005).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).