abcam

Product datasheet

Anti-GIV antibody [EPR18433] ab179481

Recombinant RabMAb

8 References 10 Images

Overview

Product name	Anti-GIV antibody [EPR18433]
Description	Rabbit monoclonal [EPR18433] to GIV
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HCT 116, HeLa, C6, RAW 264.7 and PC-12 whole cell lysates; Human fetal kidney, mouse brain and rat brain lysates. ICC/IF: HeLa and NIH/3T3 cells. Flow Cyt (intra): HeLa cells. IP: HeLa whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18433
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab179481 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/150.
WB		1/1000. Detects a band of approximately 208-216 kDa (predicted molecular weight: 216 kDa).
ICC/IF		1/2000.
IP		1/50.

Target

Function 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.

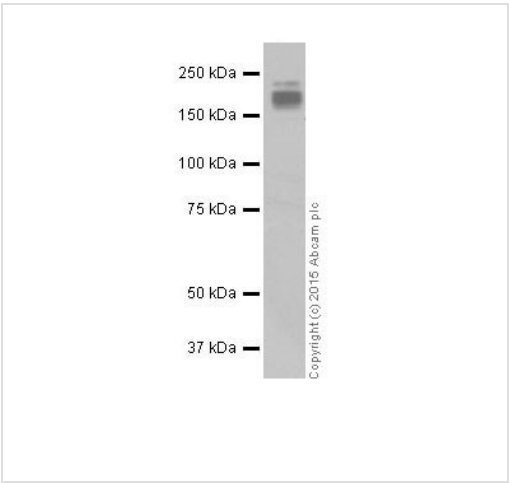
Tissue specificity Expressed ubiquitously.

Sequence similarities Belongs to the CCDC88 family.

Post-translational modifications Phosphorylation is induced by epidermal growth factor (EGF) in a phosphoinositide 3-kinase (PI3K)-dependent manner. Phosphorylation by AKT1/PKB is necessary for the delocalization from the cell membrane and for cell migration.

Cellular localization Membrane. Cell membrane. Cytoplasm > cytosol. Cytoplasmic vesicle. Cell projection > lamellipodium. Localizes to the cell membrane through interaction with phosphoinositides.

Images



Western blot - Anti-GIV antibody [EPR18433] (ab179481)

Anti-GIV antibody [EPR18433] (ab179481) at 1/5000 dilution + HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

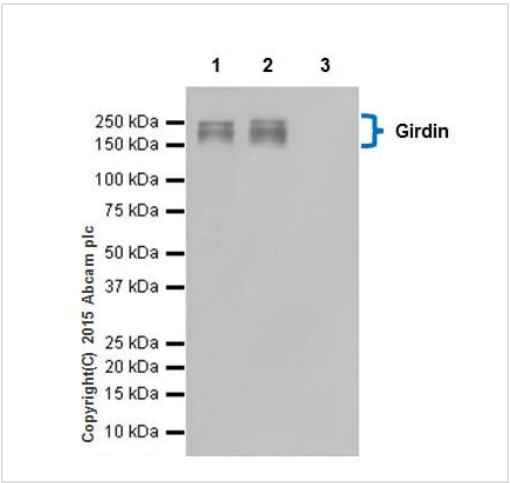
Predicted band size: 216 kDa

Observed band size: 208-216 kDa

Exposure time: 1 minute

Blocking/Dilution buffer: 5% NFDM/TBST.

Multiple bands represent 5 isoforms ranging from 208 to 216 kDa (PMID: 23195430; PMID: 22308453).



Immunoprecipitation - Anti-GIV antibody [EPR18433] (ab179481)

GIV was immunoprecipitated from 1mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab179481 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab179481 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

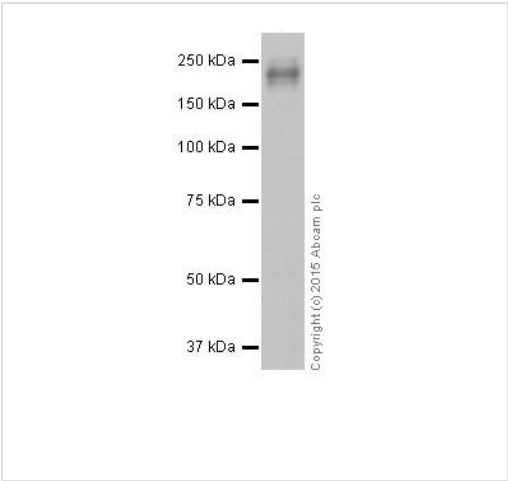
Lane 1: HeLa whole cell lysate 10µg (Input).

Lane 2: ab179481 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab179481 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.



Western blot - Anti-GIV antibody [EPR18433] (ab179481)

Anti-GIV antibody [EPR18433] (ab179481) at 1/1000 dilution + Human fetal kidney lysate at 10 µg

Secondary

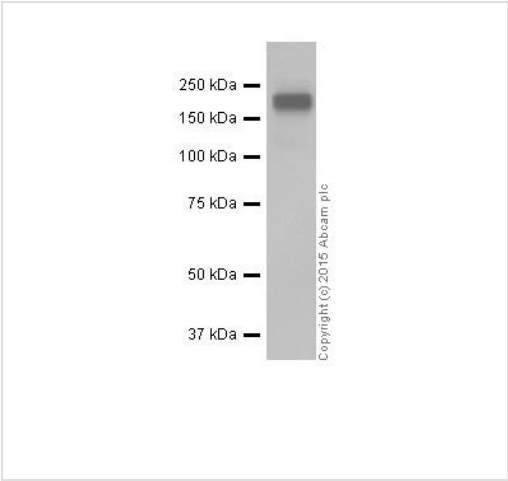
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 216 kDa
Observed band size: 208-216 kDa

Exposure time: 2 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

Multiple bands represent 5 isoforms ranging from 208 to 216 kDa (PMID: 23195430; PMID: 22308453).



Western blot - Anti-GIV antibody [EPR18433] (ab179481)

Anti-GIV antibody [EPR18433] (ab179481) at 1/1000 dilution + HCT 116 (Human colorectal carcinoma cell line) whole cell lysate at 20 µg

Secondary

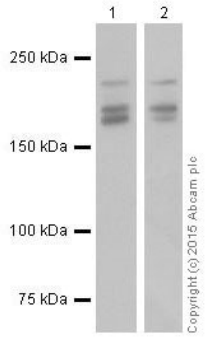
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 216 kDa
Observed band size: 208-216 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Multiple bands represent 5 isoforms ranging from 208 to 216 kDa (PMID: 23195430; PMID: 22308453).



Western blot - Anti-GIV antibody [EPR18433] (ab179481)

All lanes : Anti-GIV antibody [EPR18433] (ab179481) at 1/5000 dilution

Lane 1 : Mouse brain tissue lysate
Lane 2 : Rat brain tissue lysate

Lysates/proteins at 10 µg per lane.

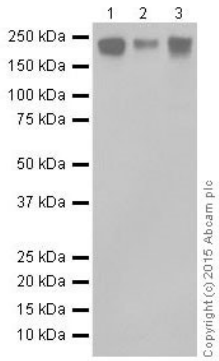
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 216 kDa
Observed band size: 208-216 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 30 seconds; Lane 2: 3 minutes.

Based on UniProt annotation, mouse GIV has 3 isoforms (215, 212, 205 kDa).



Western blot - Anti-GIV antibody [EPR18433] (ab179481)

All lanes : Anti-GIV antibody [EPR18433] (ab179481) at 1/5000 dilution

Lane 1 : C6 (Rat glial tumor cell line) whole cell lysate
Lane 2 : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate
Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

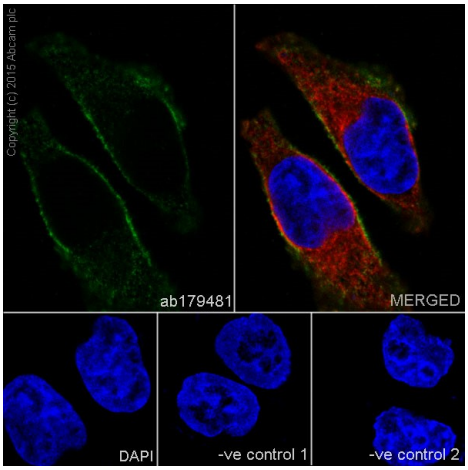
Predicted band size: 216 kDa

Observed band size: 208-216 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

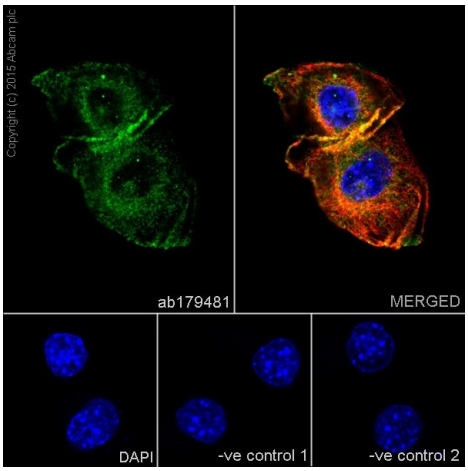
Based on UniProt annotation, mouse GIV has 3 isoforms (215, 212, 205KD).



Immunocytochemistry/ Immunofluorescence - Anti-GIV antibody [EPR18433] (ab179481)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling GIV with ab179481 at 1/2000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining on HeLa cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody-Loading Control (**ab7291**) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (AlexaFluor®594) preadsorbed (**ab150120**) at 1/1000 dilution (red).

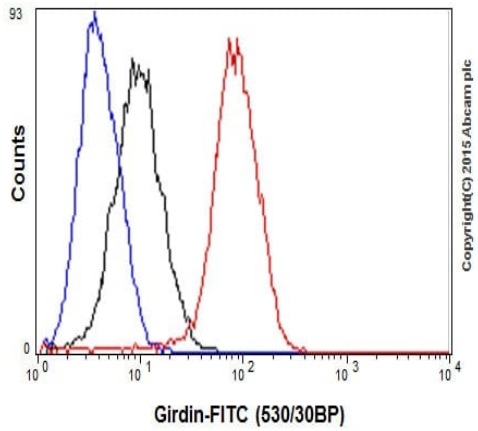
The negative controls are as follows:
-ve control 1: ab179481 at 1/2000 dilution followed by **ab150120** at 1/1000 dilution.
-ve control 2: **ab7291** at 1/1000 dilution followed by **ab150077** at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-GIV antibody [EPR18433] (ab179481)

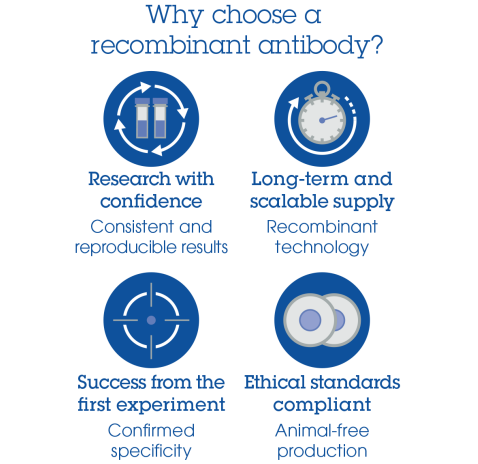
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (Mouse embryonic fibroblast cell line) cells labeling GIV with ab179481 at 1/2000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining on NIH/3T3 cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody-Loading Control (**ab7291**) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (AlexaFluor®594) preadsorbed (**ab150120**) at 1/1000 dilution (red).

The negative controls are as follows:
-ve control 1: ab179481 at 1/2000 dilution followed by **ab150120** at 1/1000 dilution.
-ve control 2: **ab7291** at 1/1000 dilution followed by **ab150077** at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-GIV antibody [EPR18433] (ab179481)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling GIV with ab179481 at 1/150 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/500 dilution was used as the secondary antibody.



Anti-GIV antibody [EPR18433] (ab179481)

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