

Rab GDI α (C-7): sc-271846

BACKGROUND

Rab proteins, a family of Ras-related small GTP-binding proteins, play a key role in regulating intracellular vesicle trafficking. Rab GDP dissociation inhibitor (Rab GDI or GDI2) forms a soluble complex with Rab proteins and thereby prevents the exchange of GDP for GTP. In mammals, there exist two major isoforms, Rab GDI α (also known as XAP-4) and Rab GDI β . While the mammalian Rab GDI β -genes are ubiquitously expressed, the Rab GDI α genes are predominantly brain-specific. Since it is expressed predominantly in neural and sensory tissues, Rab GDI α may serve a specific function in neural signal transmission. The gene sequences for the Rab GDI proteins are extremely conserved in evolution, with substantial homology preserved across three eukaryotic kingdoms.

REFERENCES

1. Nishimura, N., et al. 1994. Molecular cloning and characterization of two Rab GDI species from rat brain: brain-specific and ubiquitous types. *J. Biol. Chem.* 269: 14191-14198.
2. Nishimura, N., et al. 1995. Cloning of a brain-type isoform of human Rab GDI and its expression in human neuroblastoma cell lines and tumor specimens. *Cancer Res.* 55: 5445-5450.

CHROMOSOMAL LOCATION

Genetic locus: GDI1 (human) mapping to Xq28; Gdi1 (mouse) mapping to X A7.3.

SOURCE

Rab GDI α (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-59 near the N-terminus of Rab GDI α of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab GDI α (C-7) is available conjugated to agarose (sc-271846 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271846 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271846 PE), fluorescein (sc-271846 FITC), Alexa Fluor[®] 488 (sc-271846 AF488), Alexa Fluor[®] 546 (sc-271846 AF546), Alexa Fluor[®] 594 (sc-271846 AF594) or Alexa Fluor[®] 647 (sc-271846 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271846 AF680) or Alexa Fluor[®] 790 (sc-271846 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271846 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Rab GDI α (C-7) is recommended for detection of Rab GDI α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rab GDI α (C-7) is also recommended for detection of Rab GDI α in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Rab GDI α siRNA (h): sc-41838, Rab GDI α siRNA (m): sc-41839, Rab GDI α shRNA Plasmid (h): sc-41838-SH, Rab GDI α shRNA Plasmid (m): sc-41839-SH, Rab GDI α shRNA (h) Lentiviral Particles: sc-41838-V and Rab GDI α shRNA (m) Lentiviral Particles: sc-41839-V.

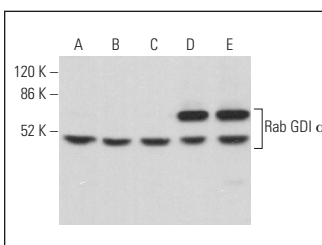
Molecular Weight of Rab GDI α : 55 kDa.

Positive Controls: Rab GDI α (h): 293 Lysate: sc-110992, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

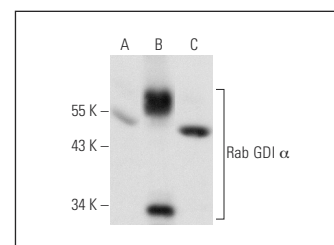
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Rab GDI α (C-7): sc-271846. Western blot analysis of Rab GDI α expression in HeLa (A), Hep G2 (B) and NIH/3T3 (C) whole cell lysates and rat brain (D) and rat cerebellum (E) tissue extracts.



Rab GDI α (C-7): sc-271846. Western blot analysis of Rab GDI α expression in non-transfected 293: sc-110760 (A), human Rab GDI α transfected 293: sc-110992 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Teke, K., et al. 2018. Monitoring the response of urothelial precancerous lesions to *Bacillus Calmette-Guerin* at the proteome level in an *in vivo* rat model. *Cancer Immunol. Immunother.* 67: 67-77.

RESEARCH USE

For research use only, not for use in diagnostic procedures.