

# Rab GDI $\alpha$ (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 GDI 3) 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  $\alpha$  (also known as XAP4) and Rab GDI  $\beta$ . While the mammalian Rab GDI  $\beta$ -genes are ubiquitously expressed, the Rab GDI  $\alpha$  genes are predominantly brain-specific. Since it is expressed predominantly in neural and sensory tissues, Rab GDI  $\alpha$  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  $\alpha$  (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-59 near the N-terminus of Rab GDI  $\alpha$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab GDI  $\alpha$  (C-7) is available conjugated to agarose (sc-271846 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271846 HRP), 200  $\mu$ 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  $\mu$ 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  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271846 P, (100  $\mu$ 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  $\alpha$  (C-7) is recommended for detection of Rab GDI  $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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  $\alpha$  (C-7) is also recommended for detection of Rab GDI  $\alpha$  in additional species, including canine, bovine and porcine.

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

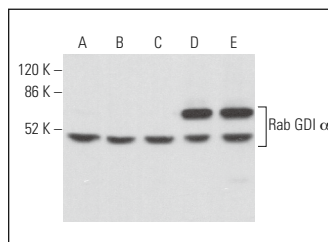
Molecular Weight of Rab GDI  $\alpha$ : 55 kDa.

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

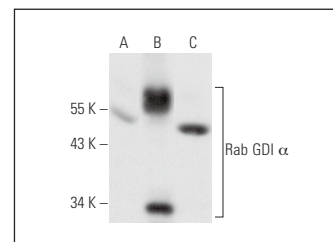
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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  $\alpha$  (C-7): sc-271846. Western blot analysis of Rab GDI  $\alpha$  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  $\alpha$  (C-7): sc-271846. Western blot analysis of Rab GDI  $\alpha$  expression in non-transfected 293: sc-110760 (A), human Rab GDI  $\alpha$  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.