

Rab GDI α/β (H-300): sc-292182

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 GDI3) 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

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3. Araki, K., Nakanishi, H., Hirano, H., Kato, M., Sasaki, T. and Takai, Y. 1995. Purification and characterization of Rab GDI β from rat brain. *Biochem. Biophys. Res. Commun.* 211: 296-305.
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5. Sedlacek, Z., Shimeld, S.M., Munstermann, E. and Poustka, A. 1999. The amphioxus Rab GDP-dissociation inhibitor (GDI) gene is neural-specific: implications for the evolution of chordate Rab GDI genes. *Mol. Biol. Evol.* 16: 1231-1237.

CHROMOSOMAL LOCATION

Genetic locus: GDI1/GDI2 (human) mapping to Xq28, 10p15.1; Gdi1 (mouse) mapping to X A7.3; Gdi2 (mouse) mapping to 13 A1.

SOURCE

Rab GDI α/β (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Rab GDI α of human origin.

PRODUCT

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

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/β (H-300) is recommended for detection of Rab GDI α , Rab GDI β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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/β (H-300) is also recommended for detection of Rab GDI α , Rab GDI β in additional species, including canine, bovine, porcine and avian.

Molecular Weight of Rab GDI α : 55 kDa.

Molecular Weight of Rab GDI β : 50 kDa

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Rab GDI α/β (E-5): sc-374649** or **Rab GDI α (C-7): sc-271846**, our highly recommended monoclonal alternatives to Rab GDI α/β (H-300).