

Rab GDI α (h): 293 Lysate: sc-110992

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 α (also known as XAP4) 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., Nakamura, H., Takai, Y. and Sano, K. 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., Goji, J., Nakamura, H., Orita, S., Takai, Y. and Sano, K. 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.
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.
4. Bachner, D., Sedlacek, Z., Korn, B., Hameister, H. and Poustka, A. 1995. Expression patterns of two human genes coding for different Rab GDP-dissociation inhibitors (GDIs), extremely conserved proteins involved in cellular transport. *Hum. Mol. Genet.* 4: 701-708.
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 (human) mapping to Xq28.

PRODUCT

Rab GDI α (h): 293 Lysate represents a lysate of human Rab GDI α transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Rab GDI α (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Rab GDI α antibodies.

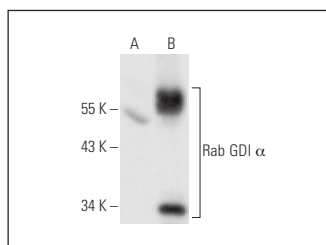
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Rab GDI α (C-7): sc-271846 is recommended as a positive control antibody for Western Blot analysis of enhanced human Rab GDI α expression in Rab GDI α transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

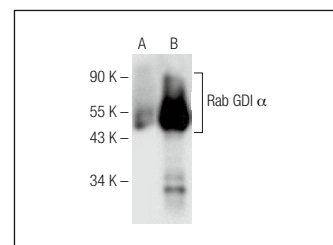
RECOMMENDED SUPPORT REAGENTS

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.

DATA



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



Rab GDI α/β (E-5): sc-374649. Western blot analysis of Rab GDI α expression in non-transfected: sc-110760 (A) and human Rab GDI α transfected: sc-110992 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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