

Rho GDI α (4A6): sc-130341

BACKGROUND

Members of the Ras superfamily of small GTP-binding proteins are critical mediators of diverse cell signaling pathways, including those leading to cell proliferation, cytoskeletal organization and secretion. The counter-conversion of the active GTP-bound form of these proteins to their inactive GDP-bound form is influenced by two types of regulatory proteins: those that alter the intrinsic GTPase activity of the GTP-binding proteins and those that alter the rate of GDP/GTP exchange. Guanine nucleotide-releasing factors (GRFs) increase the GDP dissociation rate, while GDP-dissociation inhibitors (GDIs) decrease the dissociation rate. Rho GDI α , also known as ARHGDI α or GDIA1, is a 204 amino acid member of the Rho GDI family of proteins. Localized to the cytoplasm, Rho GDI α inhibits the dissociation of GDP from Rho proteins, thereby preventing GTP from binding to and subsequently activating Rho proteins. In humans, Rho GDI α can be phosphorylated at Ser 101 by p21-activated kinase (α PAK), an event that inhibits Rho GDI α activity and may result in positive feedback regulation of certain Rho GDI α target proteins.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGDI α (human) mapping to 17q25.3; Arhgdia (mouse) mapping to 11 E2.

SOURCE

Rho GDI α (4A6) is a mouse monoclonal antibody raised against recombinant Rho GDI α of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rho GDI α (4A6) is recommended for detection of Rho GDI α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rho GDI α siRNA (h): sc-36417, Rho GDI α siRNA (m): sc-36416, Rho GDI α siRNA (r): sc-61880, Rho GDI α shRNA Plasmid (h): sc-36417-SH, Rho GDI α shRNA Plasmid (m): sc-36416-SH, Rho GDI α shRNA Plasmid (r): sc-61880-SH, Rho GDI α shRNA (h) Lentiviral Particles: sc-36417-V, Rho GDI α shRNA (m) Lentiviral Particles: sc-36416-V and Rho GDI α shRNA (r) Lentiviral Particles: sc-61880-V.

Molecular Weight of Rho GDI α : 30 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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.