

# Rho GDI $\alpha$ (4A4): sc-130340

## 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 $\alpha$ , also known as ARHGDI $\alpha$  or GDIA1, is a 204 amino acid member of the Rho GDI family of proteins. Localized to the cytoplasm, Rho GDI $\alpha$  inhibits the dissociation of GDP from Rho proteins, thereby preventing GTP from binding to and subsequently activating Rho proteins. In humans, Rho GDI $\alpha$  can be phosphorylated at Ser 101 by p21-activated kinase ( $\alpha$ PAK), an event that inhibits Rho GDI $\alpha$  activity and may result in positive feedback regulation of certain Rho GDI $\alpha$  target proteins.

## REFERENCES

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## CHROMOSOMAL LOCATION

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

## SOURCE

Rho GDI $\alpha$  (4A4) is a mouse monoclonal antibody raised against recombinant Rho GDI $\alpha$  of human origin.

## PRODUCT

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

## APPLICATIONS

Rho GDI $\alpha$  (4A4) is recommended for detection of Rho GDI $\alpha$  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 $\alpha$  siRNA (h): sc-36417, Rho GDI $\alpha$  siRNA (m): sc-36416, Rho GDI $\alpha$  siRNA (r): sc-61880, Rho GDI $\alpha$  shRNA Plasmid (h): sc-36417-SH, Rho GDI $\alpha$  shRNA Plasmid (m): sc-36416-SH, Rho GDI $\alpha$  shRNA Plasmid (r): sc-61880-SH, Rho GDI $\alpha$  shRNA (h) Lentiviral Particles: sc-36417-V, Rho GDI $\alpha$  shRNA (m) Lentiviral Particles: sc-36416-V and Rho GDI $\alpha$  shRNA (r) Lentiviral Particles: sc-61880-V.

Molecular Weight of Rho GDI $\alpha$ : 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 $\kappa$  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, 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](http://www.scbt.com) for detailed protocols and support products.