SANTA CRUZ BIOTECHNOLOGY, INC.

Rho GDIa (C-2): sc-374579



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 ARHGDIA 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 target proteins.

CHROMOSOMAL LOCATION

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

SOURCE

Rho GDI α (C-2) is a mouse monoclonal antibody raised against a peptide mapping at the C-terminus of Rho GDI α of human origin.

PRODUCT

Each vial contains 200 μ g lgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Rho GDI α (C-2) is recommended for detection of Rho GDI α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rho GDI α (C-2) is also recommended for detection of Rho GDI α in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight of Rho GDI α : 30 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG λ BP-HRP: sc-516132 or m-IgG λ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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 λ BP-FITC: sc-516185 or m-IgG λ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG λ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA





Rho GDI α (C-2): sc-374579. Western blot analysis of Rho GDI α expression in MCF7 (A), K-562 (B), Jurkat (C), EOC 20 (D) and Neuro-2A (E) whole cell lysates and rat brain tissue extract (F). Rho GDI α (C-2): sc-374579. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

1. Polavaram, N.S., et al. 2021. Tumor- and osteoclast-derived NRP2 in prostate cancer bone metastases. Bone Res. 9: 24.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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