

Ly-GDI (E-3): sc-271042

BACKGROUND

The Ras superfamily of small GTP-binding proteins are critical mediators of diverse cell signaling pathways, including those leading to 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. The Rho GDI subfamily is composed of Rho GDI α , Ly-GDI (also known as Rho GDI β and previously known as GDI/D4) and Rho GDI γ . The Rho GDI proteins interact with and have varying affinities for several Ras-like GTP binding proteins, including Rho A, Rho B, Rac and Cdc42. Ly-GDI is expressed only in hematopoietic cells, predominantly in B and T lymphocyte cell lines.

CHROMOSOMAL LOCATION

Genetic locus: ARHGDI β (human) mapping to 12p12.3; Arhgdib (mouse) mapping to 6 G1.

SOURCE

Ly-GDI (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 165-197 near the C-terminus of Ly-GDI of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-166074 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Ly-GDI (E-3) is recommended for detection of Ly-GDI of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Ly-GDI siRNA (h): sc-35826, Ly-GDI siRNA (m): sc-35827, Ly-GDI shRNA Plasmid (h): sc-35826-SH, Ly-GDI shRNA Plasmid (m): sc-35827-SH, Ly-GDI shRNA (h) Lentiviral Particles: sc-35826-V and Ly-GDI shRNA (m) Lentiviral Particles: sc-35827-V.

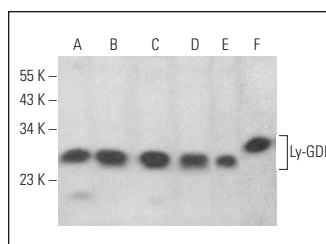
Molecular Weight of Ly-GDI: 27 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, Jurkat whole cell lysate: sc-2204 or U-937 cell lysate: sc-2239.

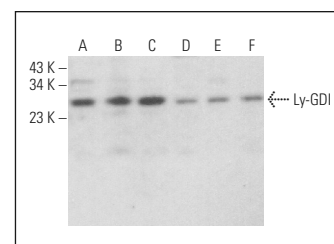
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Ly-GDI (E-3): sc-271042. Western blot analysis of Ly-GDI expression in U-937 (A), K-562 (B), Jurkat (C), HL-60 (D), Ramos (E) and BJAB (F) whole cell lysates.



Ly-GDI (E-3): sc-271042. Western blot analysis of Ly-GDI expression in K-562 (A), HEL 92.1.7 (B), HL-60 (C), c4 (D), BW5147 (E) and WEHI-231 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, W., et al. 2019. RhoGDI2 positively regulates the Rho GTPases activation in response to the β 2 outside-in signaling in T cells adhesion and migration on ICAM-1. *J. Leukoc. Biol.* 106: 431-446.
2. Luo, J., et al. 2020. Rho GDP-dissociation inhibitor 2 inhibits C-X-C chemokine receptor type 4-mediated acute lymphoblastic leukemia cell migration. *Front. Oncol.* 10: 1512.

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.



See **Ly-GDI (G-12): sc-376473** for Ly-GDI antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.