

cleaved Ly-GDI (3E6): sc-71525

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.

REFERENCES

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2. Bourne, H.R., et al. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. *Nature* 348: 125-132.
3. Hall, A. 1990. The cellular functions of small GTP-binding proteins. *Science* 249: 635-640.
4. Garrett, M.D., et al. 1991. Purification and N-terminal sequence of the p21 Rho GTPase-activating protein, Rho GAP. *Biochem. J.* 276: 833-836.
5. Scherle, P., et al. 1993. Ly-GDI, a GDP-dissociation inhibitor of the Rho A GTP-binding protein, is expressed preferentially in lymphocytes. *Proc. Natl. Acad. Sci. USA* 90: 7568-7572.
6. Platko, J.V., et al. 1995. A single residue can modify target-binding affinity and activity of the functional domain of the Rho-subfamily GDP dissociation inhibitors. *Proc. Natl. Acad. Sci. USA* 92: 2974-2978.
7. Adra, C.N., et al. 1997. Rho GDI γ : a GDP-dissociation inhibitor for Rho proteins with preferential expression in brain and pancreas. *Proc. Natl. Acad. Sci. USA* 94: 4279-4284.

CHROMOSOMAL LOCATION

Genetic locus: ARHGDI B (human) mapping to 12p12.3.

SOURCE

cleaved Ly-GDI (3E6) is a mouse monoclonal antibody raised against synthetic Ly-GDI corresponding to amino acid residue(s) in the FAS-induced cleavage site of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ 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

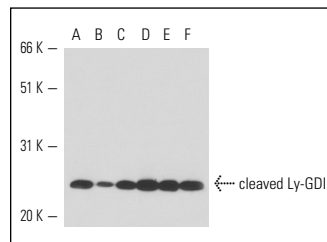
cleaved Ly-GDI (3E6) is recommended for detection of cleaved Ly-GDI of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1×10^6 cells).

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

Molecular Weight of Ly-GDI: 27 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, U-937 cell lysate: sc-2239 or Ramos cell lysate: sc-2216.

DATA



cleaved Ly-GDI (3E6): sc-71525. Western blot analysis of cleaved Ly-GDI expression in human PBL (A), U-937 (B), Ramos (C), BJAB (D), Jurkat (E) and NAMALWA (F) whole cell lysates.

STORAGE

Store at 4° C, ****DO 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.