

LARG (P-16): sc-15440

BACKGROUND

Leukemia-associated RhoGEF (LARG) is a 1,544 amino acid, guanine nucleotide exchange factor (GEF) that contains a PDZ domain, a LH/RGS domain, and a Dbl homology/pleckstrin homology domain. LARG shares homology with other RhoGEFs, including such oncogenes as DBL, VAV1, TIAM, and BCR. RhoGEFs containing RGS domains are capable of associating with activated G_α subunits, and can function as GTPase activating proteins (GAPs). LARG transcripts have been detected in human peripheral blood leukocytes, spleen, prostate, testis, ovary, small intestine, colon and thymus. The LARG protein may elicit signals through a G protein-coupled receptor (GPCR)-Rho-dependent signaling pathway. Genetic alterations that occur at human chromosome position 11q23.3, where LARG maps, are prevalent in acute leukemias.

REFERENCES

1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 4: 141-150.
2. Kourlas, P.J., et al. 2000. Identification of a gene at 11q23 encoding a guanine nucleotide exchange factor: evidence for its fusion with MLL in acute myeloid leukemia. Proc. Natl. Acad. Sci. USA 97: 2145-2150.
3. Fukuhara, S., et al. 2000. Leukemia-associated Rho guanine nucleotide exchange factor (LARG) links heterotrimeric G proteins of the G₁₂ family to Rho. FEBS Lett. 485: 183-188.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604763. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Kozasa, T. 2001. Regulation of G protein-mediated signal transduction by RGS proteins. Life Sci. 68: 2309-2317.

CHROMOSOMAL LOCATION

Genetic locus: ARHGEF12 (human) mapping to 11q23.3; Arhgef12 (mouse) mapping to 9 A5.1.

SOURCE

LARG (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of LARG of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15439 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

LARG (P-16) is recommended for detection of LARG of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

LARG (P-16) is also recommended for detection of LARG in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LARG siRNA (h): sc-41800, LARG siRNA (m): sc-41801, LARG shRNA Plasmid (h): sc-41800-SH, LARG shRNA Plasmid (m): sc-41801-SH, LARG shRNA (h) Lentiviral Particles: sc-41800-V and LARG shRNA (m) Lentiviral Particles: sc-41801-V.

Molecular Weight of LARG: 220 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

PROTOCOLS

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

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Try **LARG (H-3): sc-166318**, our highly recommended monoclonal alternative to LARG (P-16).