

# Lfc (H-146): sc-134827

## BACKGROUND

Guanine nucleotide exchange factors (GEFs) regulate the activity of the small GTP-binding proteins of the Ras superfamily. The Ras family of proteins participate in a diverse array of functions, including signal transduction, cytoskeleton dynamics and intracellular trafficking. Ras proteins cycle between a biologically inactive GDP-bound state and an active GTP-bound state. GEFs catalyze the release of GDP from inactive Ras proteins to enable GTP binding. Lfc, also designated Rho/Rac guanine nucleotide exchange factor 2, lymphoid blast crisis-like 1, ARHGEF2, GEF-H1, KIAA0651 and LFP40, is an 894 amino acid GEF for RhoA, a member of the Ras family that regulates the Actin cytoskeleton during the formation of stress fibers. Lfc directly interacts with cingulin, a junctional adapter that inhibits RhoA, thus preventing phorbol-12-myristate-13-acetate-induced contraction and apoptosis. Mutations in the p53 gene transcriptionally activate Lfc, thereby increasing tumor cell proliferation.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ARHGEF2 (human) mapping to 1q22; Arhgef2 (mouse) mapping to 3 F1.

## RESEARCH USE

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

## SOURCE

Lfc (H-146) is a rabbit polyclonal antibody raised against amino acids 31-176 mapping near the N-terminus of Lfc 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.

## APPLICATIONS

Lfc (H-146) is recommended for detection of Lfc of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Lfc (H-146) is also recommended for detection of Lfc in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Lfc siRNA (h): sc-41723, Lfc siRNA (m): sc-41724, Lfc shRNA Plasmid (h): sc-41723-SH, Lfc shRNA Plasmid (m): sc-41724-SH, Lfc shRNA (h) Lentiviral Particles: sc-41723-V and Lfc shRNA (m) Lentiviral Particles: sc-41724-V.

Molecular Weight of Lfc: 100 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, PC-3 cell lysate: sc-2220 or NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.