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Lfc (h2): 293T Lysate: sc-170219



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

1. Krendel, M., Zenke, F.T. and Bokoch, G.M. 2002. Nucleotide exchange factor GEF-H1 mediates cross-talk between microtubules and the Actin cytoskeleton. *Nat. Cell Biol.* 4: 294-301.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607560. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Brecht, M., Steenvoorden, A.C., Collard, J.G., Luf, S., Erz, D., Bartram, C.R. and Janssen, J.W. 2004. Activation of GEF-H1, a guanine nucleotide exchange factor for RhoA, by DNA transfection. *Int. J. Cancer* 113: 533-540.
4. Zenke, F.T., Krendel, M., DerMardirossian, C., King, C.C., Bohl, B.P. and Bokoch, G.M. 2004. p21-activated kinase 1 phosphorylates and regulates 14-3-3 binding to GEF-H1, a microtubule-localized Rho exchange factor. *J. Biol. Chem.* 279: 18392-18400.
5. Ajiaz, S., D'Atri, F., Citi, S., Balda, M.S. and Matter, K. 2005. Binding of GEF-H1 to the tight junction-associated adaptor cingulin results in inhibition of Rho signaling and G₁/S phase transition. *Dev. Cell* 8: 777-786.
6. Callow, M.G., Zozulya, S., Gishizky, M.L., Jallal, B. and Smeal, T. 2005. PAK4 mediates morphological changes through the regulation of GEF-H1. *J. Cell Sci.* 118: 1861-1872.
7. Birukova, A.A., Adyshev, D., Gorshkov, B., Bokoch, G.M., Birukov, K.G. and Verin, A.D. 2006. GEF-H1 is involved in agonist-induced human pulmonary endothelial barrier dysfunction. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 290: L540-L548.
8. Chang, Z.F. and Lee, H.H. 2006. Rho A signaling in phorbol ester-induced apoptosis. *J. Biomed. Sci.* 13: 173-180.

CHROMOSOMAL LOCATION

Genetic locus: ARHGEF2 (human) mapping to 1q22.

PRODUCT

Lfc (h2): 293T Lysate represents a lysate of human Lfc transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Lfc (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Lfc antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.