

LEF-1 (H-70): sc-28687

BACKGROUND

The TCF (T cell factor) family of transcription factors are activated by the Wnt-1 and Wntless pathways and are characterized by the presence of a conserved protein motif, the high mobility group (HMG) 1 box, which mediates DNA binding. The TCF (T cell factor) proteins, which are required during development, include TCF-1, which is essential for lymphoid cell development, and TCF-3 and TCF-4, which are implicated in neuronal development and LEF (leukemia enhancer factor). The Wnt mediated signaling pathway induces cytosolic β -catenin binding to TCF proteins within the nucleus, leading to the enhanced expression of the Wnt target genes. The β -catenin-TCF complexes are negatively regulated by the adenomatous polyposis coli (APC) tumor suppressor protein, which phosphorylates β -catenin and, in turn, increases the degradation of cytosolic β -catenin to, thereby, inhibit the transcriptional activity of the TCF proteins. Mutations in the APC gene, which are commonly observed in colorectal carcinomas, disrupt this regulatory pathway and correlate to an accumulation of β -catenin and the increased activation of the TCF target genes.

CHROMOSOMAL LOCATION

Genetic locus: LEF1 (human) mapping to 4q25; Lef1 (mouse) mapping to 3 G3.

SOURCE

LEF-1 (H-70) is a rabbit polyclonal antibody raised against amino acids 61-130 mapping near the N-terminus of LEF-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28687 X, 200 μ g/0.1 ml.

APPLICATIONS

LEF-1 (H-70) is recommended for detection of LEF-1 of mouse, rat and 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)], 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).

LEF-1 (H-70) is also recommended for detection of LEF-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for LEF-1 siRNA (h): sc-35804, LEF-1 siRNA (m): sc-35805, LEF-1 shRNA Plasmid (h): sc-35804-SH, LEF-1 shRNA Plasmid (m): sc-35805-SH, LEF-1 shRNA (h) Lentiviral Particles: sc-35804-V and LEF-1 shRNA (m) Lentiviral Particles: sc-35805-V.

LEF-1 (H-70) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

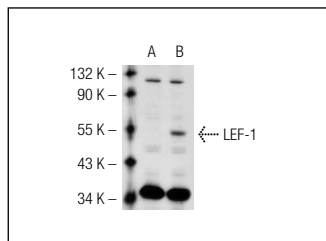
Molecular Weight of LEF-1: 54 kDa.

Positive Controls: LEF-1 (h): 293T Lysate: sc-116288, CCRF-HSB-2 cell lysate: sc-2265 or HUT 78 whole cell lysate: sc-2208.

STORAGE

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

DATA



LEF-1 (H-70): sc-28687. Western blot analysis of LEF-1 expression in non-transfected: sc-117752 (A) and human LEF-1 transfected: sc-116288 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Yi, F., et al. 2005. TCF-4 mediates cell type-specific regulation of proglucagon gene expression by β -catenin and glycogen synthase kinase-3 β . *J. Biol. Chem.* 280: 1457-1464.
- Minke, K.S., et al. 2009. Small molecule inhibitors of WNT signaling effectively induce apoptosis in acute myeloid leukemia cells. *Eur. J. Haematol.* 82: 165-175.
- García-Martínez, J.M., et al. 2009. WNT/ β -catenin increases the production of incretins by entero-endocrine cells. *Diabetologia* 52: 1913-1924.
- Humtsoe, J.O., et al. 2010. Lipid phosphate phosphatase 3 stabilization of β -catenin induces endothelial cell migration and formation of branching point structures. *Mol. Cell. Biol.* 30: 1593-1606.
- Li, Z., et al. 2011. A potential role of the JNK pathway in hyperoxia-induced cell death, myofibroblast transdifferentiation and TGF- β 1-mediated injury in the developing murine lung. *BMC Cell Biol.* 12: 54.
- Visser, M., et al. 2012. HERC2 rs12913832 modulates human pigmentation by attenuating chromatin-loop formation between a long-range enhancer and the OCA2 promoter. *Genome Res.* 22: 446-455.

RESEARCH USE

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

PROTOCOLS

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



Try **LEF-1 (B-10): sc-374412** or **LEF-1 (B-6): sc-374522**, our highly recommended monoclonal alternatives to LEF-1 (H-70). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LEF-1 (B-10): sc-374412**.