

Lrrfip1 (M-300): sc-68387

BACKGROUND

LRRFIP1 (also designated GCF2) is a 738 amino acid human protein whose rodent counterpart is known as Lrrfip1 (also designated FLAP in mouse). LRRFIP1 is a transcriptional repressor which will preferentially bind to the GC-rich consensus sequence (5'-AGCCCCGGCG-3') and may also regulate expression of TNF, EGFR and PDGF-A. LRRFIP1 is also believed to control smooth muscle cell proliferation following arterial injury through PDGF-A repression. The N-terminus of LRRFIP1 shows high homology to the coiled-coil domain of FLAP, a protein which binds the leucine-rich repeat (LRR) of Flightless I, and the interaction of LRRFIP1 with the LRR of Flightless I has been confirmed. LRRFIP1 does not bind single-stranded DNA or RNA significantly and binds double-stranded DNA weakly. In contrast, LRRFIP1 binds double-stranded RNA with high affinity, and two molecules of LRRFIP1 bind the TaR stem. The RNA binding domain has been identified and encompasses a lysine-rich motif. Flightless I has a C-terminal TaR-like domain which binds Actin and therefore the association of LRRFIP1 with the LRR of Flightless I may provide a link between the Actin cytoskeleton and RNA in mammalian cells.

REFERENCES

1. Reed, A.L., et al. 1998. Molecular cloning and characterization of a transcription regulator with homology to GC-binding factor. *J. Biol. Chem.* 273: 21594-21602.
2. Wilson, S.A., et al. 1998. TRIP: a novel double stranded RNA binding protein which interacts with the leucine rich repeat of Flightless I. *Nucleic Acids Res.* 26: 3460-3467.
3. Khachigian, L.M., et al. 1999. GC factor 2 represses platelet-derived growth factor A-chain gene transcription and is itself induced by arterial injury. *Circ. Res.* 84: 1258-1267.
4. Rikiyama, T., et al. 2003. GCF2: expression and molecular analysis of repression. *Biochim. Biophys. Acta* 1629: 15-25.

CHROMOSOMAL LOCATION

Genetic locus: Lrrfip1 (mouse) mapping to 1 D.

SOURCE

Lrrfip1 (M-300) is a rabbit polyclonal antibody raised against amino acids 241-540 mapping within an internal region of Lrrfip1 of mouse origin.

PRODUCT

Each vial contains 200 µg 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-68387 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

Lrrfip1 (M-300) is recommended for detection of Lrrfip1 of mouse and, to a lesser extent, rat 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).

Suitable for use as control antibody for Lrrfip1 siRNA (m2): sc-270289, Lrrfip1 shRNA Plasmid (m2): sc-270289-SH and Lrrfip1 shRNA (m2) Lentiviral Particles: sc-270289-V.

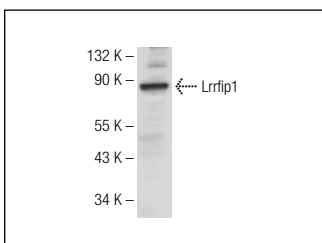
Lrrfip1 (M-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Lrrfip1 isoforms: 85/120/160 kDa.

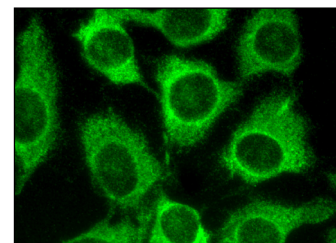
RECOMMENDED SECONDARY REAGENTS

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.

DATA



Lrrfip1 (M-300): sc-68387. Western blot analysis of Lrrfip1 expression in KNRK whole cell lysate.



Lrrfip1 (M-300): sc-68387. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

RESEARCH USE

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

MONOS
Satisfaction
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Try **Lrrfip1 (34): sc-135910** or **Lrrfip1 (G-3): sc-515571**, our highly recommended monoclonal alternatives to Lrrfip1 (M-300).