

# LRRFIP1 (G-4): sc-514221

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: LRRFIP1 (human) mapping to 2q37.3; Lrrfip1 (mouse) mapping to 1 D.

## SOURCE

LRRFIP1 (G-4) is a mouse monoclonal antibody raised against amino acids 581-808 mapping at the C-terminus of LRRFIP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain 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-514221 X, 200 µg/0.1 ml.

LRRFIP1 (G-4) is available conjugated to agarose (sc-514221 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514221 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514221 PE), fluorescein (sc-514221 FITC), Alexa Fluor® 488 (sc-514221 AF488), Alexa Fluor® 546 (sc-514221 AF546), Alexa Fluor® 594 (sc-514221 AF594) or Alexa Fluor® 647 (sc-514221 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514221 AF680) or Alexa Fluor® 790 (sc-514221 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

LRRFIP1 (G-4) is recommended for detection of LRRFIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (h2): sc-270288, Lrrfip1 siRNA (m2): sc-270289, LRRFIP1 shRNA Plasmid (h2): sc-270288-SH, Lrrfip1 shRNA Plasmid (m2): sc-270289-SH, LRRFIP1 shRNA (h2) Lentiviral Particles: sc-270288-V and Lrrfip1 shRNA (m2) Lentiviral Particles: sc-270289-V.

LRRFIP1 (G-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

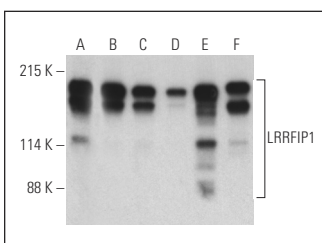
Molecular Weight of LRRFIP1 isoforms: 85/120/160 kDa.

Positive Controls: A-431 whole cell lysate: 2201, Raji whole cell lysate: sc-364236 or NCI-H226 whole cell lysate: sc-364256.

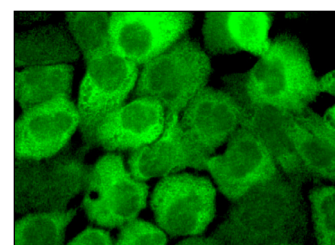
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



LRRFIP1 (G-4): sc-514221. Western blot analysis of LRRFIP1 expression in NCI-H226 (A), Raji (B), Jurkat (C), A-431 (D), ZR-75-1 (E) and IB4 (F) whole cell lysates. Detection reagent used: m-IgG<sub>1</sub> BP-HRP: sc-525408.



LRRFIP1 (G-4): sc-514221. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic localization.

## 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.

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