**BACKGROUND**

LRRFIP1 (also designated GCF2) is an 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’-AGCCCCCGCG-3’) and may also regulate expression of TNF, EGF 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**


**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.

**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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG B-HRP: sc-516102 or m-IgG B-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molar 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-270288, Human IgG Conjugate: sc-270288-SH, Lrrfip1 shRNA Plasmid (m2): sc-270289-SH, Lrrfip1 shRNA Plasmid (m2): sc-270289-SH, Lrrfip1 shRNA Plasmid (m2) 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**

**DATA**

LRRFIP1 (G-4): sc-514221. Western blot analysis of LRRFIP1 expression in NCI-H226 (A), Raji (B), Jurkat (C), A-431 (D), 293-75-1 (E) and IB4 (F) whole cell lysates. Detection reagent used: m-IgG B-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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