

# LRRFIP1 (C-18): sc-66677

## 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.
5. Suriano, A.R., et al. 2005. GCF2/LRRFIP1 represses tumor necrosis factor  $\alpha$  expression. *Mol. Cell. Biol.* 25: 9073-9081.

## CHROMOSOMAL LOCATION

Genetic locus: LRRFIP1 (human) mapping to 2q37.3.

## SOURCE

LRRFIP1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LRRFIP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ 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-66677 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-66677 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

LRRFIP1 (C-18) is recommended for detection of LRRFIP1 (also designated GCF2) of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

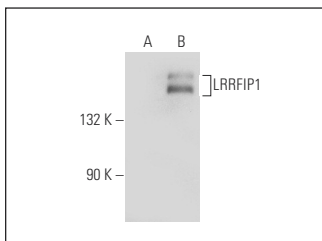
Suitable for use as control antibody for LRRFIP1 siRNA (h): sc-63161, LRRFIP1 shRNA Plasmid (h): sc-63161-SH and LRRFIP1 shRNA (h) Lentiviral Particles: sc-63161-V.

LRRFIP1 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

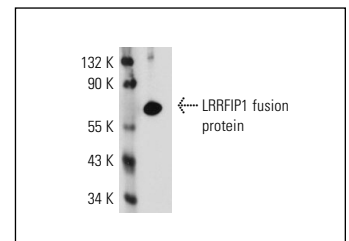
Molecular Weight of LRRFIP1 isoforms: 85/120/160 kDa.

Positive Controls: LRRFIP1 (h4): 293T Lysate: sc-177275, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

## DATA



LRRFIP1 (C-18): sc-66677. Western blot analysis of LRRFIP1 expression in non-transfected: sc-117752 (A) and human LRRFIP1 transfected: sc-177275 (B) 293T whole cell lysates.



LRRFIP1 (C-18): sc-66677. Western blot analysis of human recombinant LRRFIP1 fusion protein.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **LRRFIP1 (G-4): sc-514221** or **LRRFIP1 (C-3): sc-398240**, our highly recommended monoclonal alternatives to LRRFIP1 (C-18).