

# LRRC4 (C-11): sc-376475

## BACKGROUND

The leucine-rich repeat (LRR) is a 20-30 amino acid motif that forms a hydrophobic  $\alpha/\beta$  horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRRs contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. The primary function of these motifs is to provide a versatile structural framework to mediate the formation of protein-protein interactions. The leucine-rich repeat-containing protein 4 (LRRC4), also designated brain tumor-associated protein BAG, Nasopharyngeal carcinoma-associated gene 14 protein (NAG14) or Netrin-G2 ligand (NGL-2), contains one Ig-like (immunoglobulin-like) domain and nine LRR (leucine-rich repeats). LRRC4 is specifically expressed in brain. Methylation of the LRRC4 gene occurs frequently in gliomas, making LRRC4 a biomarker for diagnosis or a potential therapeutic target.

## REFERENCES

1. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
2. Matsushima, N., et al. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. *Cell. Mol. Life Sci.* 62: 2771-2791.
3. Zhang, Q., et al. 2005. Expression and functional characterization of LRRC4, a novel brain-specific member of the LRR superfamily. *FEBS Lett.* 579: 3674-3682.
4. Wu, M., et al. 2006. LRRC4, a putative tumor suppressor gene, requires a functional leucine-rich repeat cassette domain to inhibit proliferation of glioma cells *in vitro* by modulating the extracellular signal-regulated kinase/protein kinase B/nuclear factor- $\kappa$ B pathway. *Mol. Biol. Cell* 17: 3534-3542.
5. Chen, Q., et al. 2007. Inhibitory effect of LRRC4 on the mobility and invasion of glioblastomas through the SDF-1 $\alpha$ /CXCR4 axis. *Zhong Nan Da Xue Xue Bao Yi Xue Ban* 32: 735-741.

## CHROMOSOMAL LOCATION

Genetic locus: LRRC4 (human) mapping to 7q32.1.

## SOURCE

LRRC4 (C-11) is a mouse monoclonal antibody raised against amino acids 458-525 mapping within an internal region of LRRC4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRRC4 (C-11) is available conjugated to agarose (sc-376475 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376475 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376475 PE), fluorescein (sc-376475 FITC), Alexa Fluor<sup>®</sup> 488 (sc-376475 AF488), Alexa Fluor<sup>®</sup> 546 (sc-376475 AF546), Alexa Fluor<sup>®</sup> 594 (sc-376475 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-376475 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-376475 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-376475 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

LRRC4 (C-11) is recommended for detection of LRRC4 of human origin by Western Blotting (starting dilution 1:100, 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 LRRC4 siRNA (h): sc-89808, LRRC4 shRNA Plasmid (h): sc-89808-SH and LRRC4 shRNA (h) Lentiviral Particles: sc-89808-V.

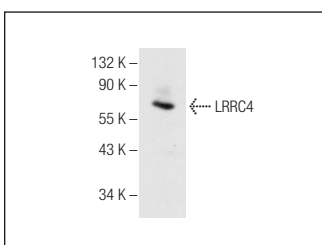
Molecular Weight of LRRC4: 73 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or SK-N-SH cell lysate: sc-2410.

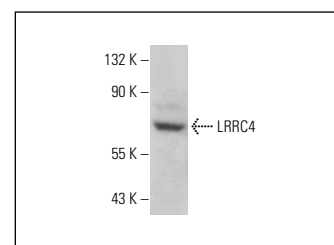
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



LRRC4 (C-11): sc-376475. Western blot analysis of LRRC4 expression in IMR-32 whole cell lysate.



LRRC4 (C-11): sc-376475. Western blot analysis of LRRC4 expression in SK-N-SH whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Xue, Y., et al. 2020. Dexmedetomidine protects PC12 cells from ropivacaine injury through miR-381/LRRC4 /SDF-1/CXCR4 signaling pathway. *Regen. Ther.* 14: 322-329.

## 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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