SANTA CRUZ BIOTECHNOLOGY, INC.

LRRC8D (A-12): sc-515070

BACKGROUND

The leucine-rich repeat (LRR) is a 20-30 amino acid motif that forms a hydrophobic α/β 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 this motif is to provide a versatile structural framework to mediate the formation of protein-protein interactions. LRRs are present in a variety of proteins with diverse structure and function, including innate immunity and nervous system development. Several human diseases are associated with mutations in genes encoding LRR-containing proteins. LRRC8D (leucine-rich repeat-containing protein 8D, also known as LRRC5, is a 858 amino acid multi-pass membrane protein that contains 13 LRRs.

REFERENCES

1. Gomi, F., et al. 2000. Molecular cloning of a novel membrane glycoprotein, pal, specifically expressed in photoreceptor cells of the retina and containing leucine-rich repeat. J. Neurosci. 20: 3206-3213.
2. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
3. Hofman, P., et al. 2001. Lack of blood-brain barrier properties in microvessels of the prelaminar optic nerve head. Invest. Ophthalmol. Vis. Sci. 42: 895-901.
4. Hughes, J.M., et al. 2004. Vascular leucocyte adhesion molecules unaltered in the human retina in diabetes. Br. J. Ophthalmol. 88: 566-572.

CHROMOSOMAL LOCATION

Genetic locus: LRRC8D (human) mapping to 1p22.2; Lrrc8d (mouse) mapping to 5 E5.

SOURCE

LRRC8D (A-12) is a mouse monoclonal antibody raised against amino acids 221-282 mapping within an internal region of LRRC8D of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRRC8D (A-12) is available conjugated to agarose (sc-515070 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515070 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515070 PE), fluorescein (sc-515070 FITC), Alexa Fluor® 488 (sc-515070 AF488), Alexa Fluor® 546 (sc-515070 AF546), Alexa Fluor® 594 (sc-515070 AF594) or Alexa Fluor® 647 (sc-515070 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515070 AF680) or Alexa Fluor® 790 (sc-515070 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

LRRC8D (A-12) is recommended for detection of LRRC8D 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 LRRC8D siRNA (h): sc-88508, LRRC8D siRNA (m): sc-149108, LRRC8D shRNA Plasmid (h): sc-88508-SH, LRRC8D shRNA Plasmid (m): sc-149108-SH, LRRC8D shRNA (h) Lentiviral Particles: sc-88508-V and LRRC8D shRNA (m) Lentiviral Particles: sc-149108-V.

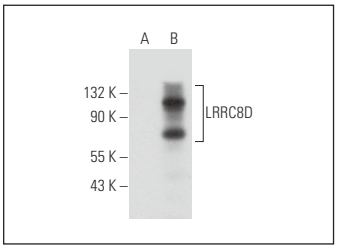
Molecular Weight of LRRC8D: 98 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or LRRC8D (m): 293T Lysate: sc-121417.

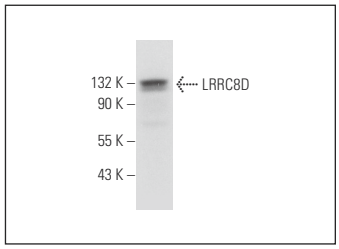
RECOMMENDED SUPPORT REAGENTS

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



LRRC8D (A-12): sc-515070. Western blot analysis of LRRC8D expression in non-transfected: sc-117752 (**A**) and mouse LRRC8D transfected: sc-121417 (**B**) 293T whole cell lysates.



LRRC8D (A-12): sc-515070. Western blot analysis of LRRC8D expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ruprecht, N., et al. 2020. Generation of stable cisPt resistant lung adenocarcinoma cells. Pharmaceuticals 13: 109.
2. Choi, H., et al. 2021. Oxidant-resistant LRRC8A/C anion channels support superoxide production by NADPH oxidase 1. J. Physiol. 599: 3013-3036.

STORAGE

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