

LRRC48 (H-5): sc-390106

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 these motifs 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. LRRC48 (leucine rich repeat containing 48) is a 523 amino acid protein that contains five LRR (leucine-rich repeats) and one LRRC domain. Existing as two alternatively spliced isoforms, LRRC48 is encoded by human chromosome 17p11.2.

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.
5. Kuiper, E.J., et al. 2004. Differential expression of connective tissue growth factor in microglia and pericytes in the human diabetic retina. *Br. J. Ophthalmol.* 88: 1082-1087.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: LRRC48 (human) mapping to 17p11.2.

SOURCE

LRRC48 (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-27 at the N-terminus of LRRC48 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390106 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

LRRC48 (H-5) is recommended for detection of LRRC48 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 LRRC48 siRNA (h): sc-93792, LRRC48 shRNA Plasmid (h): sc-93792-SH and LRRC48 shRNA (h) Lentiviral Particles: sc-93792-V.

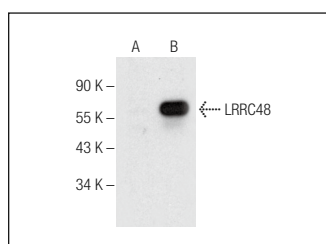
Molecular Weight of LRRC48 isoforms: 61/53 kDa.

Positive Controls: A549 cell lysate: sc-2413 or LRRC48 (h2): 293T Lysate: sc-116161.

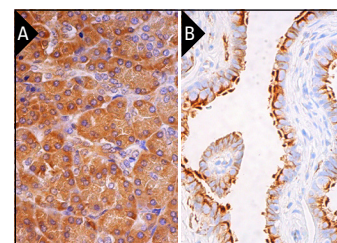
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LRRC48 (H-5): sc-390106. Western blot analysis of LRRC48 expression in non-transfected: sc-117752 (A) and human LRRC48 transfected: sc-116161 (B) 293T whole cell lysates.



LRRC48 (H-5): sc-390106. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing apical membrane staining of glandular cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgG κ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (B).

RESEARCH USE

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