LRRC28 (E-14): sc-138397



The Power to Question

BACKGROUND

The leucine-rich (LRR) repeat 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 LRR repeats 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. LRRC28 (leucine-rich repeat-containing protein 28) is a 367 amino acid protein that contains 9 LRR (leucine-rich) repeats and exists as 3 alternatively spliced isoforms.

REFERENCES

- Gomi, F., Imaizumi, K., Yoneda, T., Taniguchi, M., Mori, Y., Miyoshi, K., Hitomi, J., Fujikado, T., Tano, Y. and Tohyama, M. 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.
- Hofman, P., Hoyng, P., vanderWerf, F., Vrensen, G.F. and Schlingemann, R.O. 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., Brink, A., Witmer, A.N., Hanraads-de Riemer, M., Klaassen, I. and Schlingemann, R.O. 2004. Vascular leucocyte adhesion molecules unaltered in the human retina in diabetes. Br. J. Ophthalmol. 88: 566-572.
- Kuiper, E.J., Witmer, A.N., Klaassen, I., Oliver, N., Goldschmeding, R. and Schlingemann, R.O. 2004. Differential expression of connective tissue growth factor in microglia and pericytes in the human diabetic retina. Br. J. Ophthalmol. 88: 1082-1087.
- Matsushima, N., Tachi, N., Kuroki, Y., Enkhbayar, P., Osaki, M., Kamiya, M. and Kretsinger, R.H. 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: LRRC28 (human) mapping to 15q26.3; Lrrc28 (mouse) mapping to 7 C.

SOURCE

LRRC28 (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of LRRC28 of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138397 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRRC28 (E-14) is recommended for detection of LRRC28 isoforms 1-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other LRRC family members.

Suitable for use as control antibody for LRRC28 siRNA (h): sc-89915, LRRC28 siRNA (m): sc-149067, LRRC28 shRNA Plasmid (h): sc-89915-SH, LRRC28 shRNA Plasmid (m): sc-149067-SH, LRRC28 shRNA (h) Lentiviral Particles: sc-89915-V and LRRC28 shRNA (m) Lentiviral Particles: sc-149067-V.

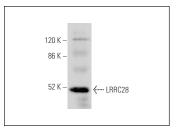
Molecular Weight of LRRC28: 42/36/32 kDa.

Positive Controls: mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LRRC28 (E-14): sc-138397. Western blot analysis of LRRC28 expression in mouse heart tissue extract.

RESEARCH USE

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