

LRRC59 (X-23): sc-133763

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. LRRC59 (leucine rich repeat containing 59), also known as PRO1855, is a 307 amino acid protein that contains leucine-rich repeats and may play a role in protein binding events throughout the cell. The gene encoding LRRC59 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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2. Kobe, B. and Deisenhofer, J. 1995. Proteins with leucine-rich repeats. *Curr. Opin. Struct. Biol.* 5: 409-416.
3. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
4. Kedzierski, A, Montgomery, J., Curtis, J. and Handman, E. 2004. Leucine-rich repeats in host-pathogen interactions. *Arch. Immunol. Ther. Exp.* 52: 104-112.
5. Enkhbayar, P., Kamiya, M., Osaki, M., Matsumoto, T. and Matsushima, N. 2004. Structural principles of leucine-rich repeat (LRR) proteins. *Proteins* 54: 394-403.
6. 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: LRRC59 (human) mapping to 17q21.33; Lrrc59 (mouse) mapping to 11 D.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

SOURCE

LRRC59 (X-23) is an affinity purified rabbit polyclonal antibody raised against synthetic LRRC59 peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

LRRC59 (X-23) is recommended for detection of LRRC59 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LRRC59 siRNA (h): sc-94079, LRRC59 siRNA (m): sc-149097, LRRC59 shRNA Plasmid (h): sc-94079-SH, LRRC59 shRNA Plasmid (m): sc-149097-SH, LRRC59 shRNA (h) Lentiviral Particles: sc-94079-V and LRRC59 shRNA (m) Lentiviral Particles: sc-149097-V.

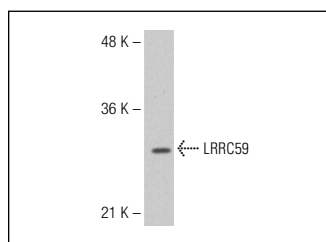
Molecular Weight of LRRC59: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

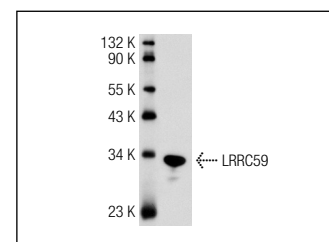
RECOMMENDED SECONDARY REAGENTS

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).

DATA



LRRC59 (X-23): sc-133763. Western blot analysis of LRRC59 expression in Hep G2 whole cell lysate.



LRRC59 (X-23): sc-133763. Western blot analysis of LRRC59 expression in MCF7 whole cell lysate.

RESEARCH USE

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