

## ISLR2 (S-17): sc-164710

### BACKGROUND

The leucine-rich (LRR) repeat 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 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. ISLR2 (immunoglobulin superfamily containing leucine-rich repeat 2), also known as LINX (leucine-rich repeat domain and immunoglobulin domain-containing axon extension protein), is a 745 amino acid single-pass membrane protein that contains five LRR repeats, one Ig-like (immunoglobulin-like) domain, a LRRCT domain and one LRRNT domain. ISLR2 exists as a homomultimer and is essential for axon extension during neural development. The gene encoding ISLR2 maps to human chromosome 15q24.1.

### REFERENCES

1. Kobe, B. and Deisenhofer, J. 1994. The leucine-rich repeat: a versatile binding motif. *Trends Biochem. Sci.* 19: 415-421.
2. Kobe, B. and Deisenhofer, J. 1995. Proteins with leucine-rich repeats. *Curr. Opin. Struct. Biol.* 5: 409-416.
3. Nagasawa, A., Kudoh, J., Noda, S., Mashima, Y., Wright, A., Oguchi, Y. and Shimizu, N. 1999. Human and mouse ISLR (immunoglobulin superfamily containing leucine-rich repeat) genes: genomic structure and tissue expression. *Genomics* 61: 37-43.
4. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
5. 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.
6. Bella, J., Hindle, K.L., McEwan, P.A. and Lovell, S.C. 2008. The leucine-rich repeat structure. *Cell. Mol. Life Sci.* 65: 2307-2333.

### CHROMOSOMAL LOCATION

Genetic locus: ISLR2 (human) mapping to 15q24.1; *Islr2* (mouse) mapping to 9 B.

### SOURCE

ISLR2 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ISLR2 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164710 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

ISLR2 (S-17) is recommended for detection of ISLR2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with ISLR.

ISLR2 (S-17) is also recommended for detection of ISLR2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ISLR2 siRNA (h): sc-90238, ISLR2 siRNA (m): sc-146299, ISLR2 shRNA Plasmid (h): sc-90238-SH, ISLR2 shRNA Plasmid (m): sc-146299-SH, ISLR2 shRNA (h) Lentiviral Particles: sc-90238-V and ISLR2 shRNA (m) Lentiviral Particles: sc-146299-V.

Molecular Weight of ISLR2: 79 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.