

## IL-1R8 (P-15): sc-161736

### BACKGROUND

IL-1R8, also known as X-linked interleukin-1 receptor accessory protein-like 1 (IL1RAPL-1), oligophrenin-4 or three immunoglobulin domain-containing IL-1 receptor-related 2 (TIGIRR-2), is a member of the interleukin-1/toll-like receptor family predominantly expressed in brain and heart. It is a single-pass transmembrane protein with a highly conserved cytoplasmic region that is slightly longer than that of other family members. IL-1R8 is highly homologous to IL-1R9 and the IL-1 accessory protein receptor chains. The genes encoding IL-1R8 and IL-1R9 are both found on the X chromosome. IL-1R8 may interact with NCS-1 and, via this interaction, may be involved in the regulation of exocytosis and synaptic transmission. A truncating mutation in IL-1R8, possibly disrupting the activity of N-type voltage-gated calcium channels or NCS-1 dependent neuronal activity, results in non-syndromic mental retardation X-linked type 21 or MRX21.

### REFERENCES

- Born, T.L., et al. 2000. Identification and characterization of two members of a novel class of the interleukin-1 receptor (IL-1R) family. Delineation of a new class of IL-1R-related proteins based on signaling. *J. Biol. Chem.* 275: 29946-29954.
- Bahi, N., et al. 2003. IL-1 receptor accessory protein like, a protein involved in X-linked mental retardation, interacts with neuronal calcium sensor-1 and regulates exocytosis. *Hum. Mol. Genet.* 12: 1415-1425.
- Zhang, Y.H., et al. 2004. IL1RAPL1 is associated with mental retardation in patients with complex glycerol kinase deficiency who have deletions extending telomeric of DAX-1. *Hum. Mutat.* 24: 273-273.
- Dinareello, C.A. 2004. The IL-1 family and inflammatory diseases. *Clin. Exp. Rheumatol.* 20: S1-S13.
- Andre, R., et al. 2005. Regulation of expression of the novel IL-1 receptor family members in the mouse brain. *J. Neurochem.* 95: 324-330.

### CHROMOSOMAL LOCATION

Genetic locus: IL1RAPL1 (human) mapping to Xp21.3; Il1rapl1 (mouse) mapping to X C1.

### SOURCE

IL-1R8 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of IL-1R8 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161736 P, (100 µg 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

IL-1R8 (P-15) is recommended for detection of IL-1R8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with IL-1RI, IL-1RII, IL-1R3, ST2, IL-1R5, IL-1Rrp2, IL-1R7 or IL-1R9.

IL-1R8 (P-15) is also recommended for detection of IL-1R8 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for IL-1R8 siRNA (h): sc-91336, IL-1R8 siRNA (m): sc-146213, IL-1R8 shRNA Plasmid (h): sc-91336-SH, IL-1R8 shRNA Plasmid (m): sc-146213-SH, IL-1R8 shRNA (h) Lentiviral Particles: sc-91336-V and IL-1R8 shRNA (m) Lentiviral Particles: sc-146213-V.

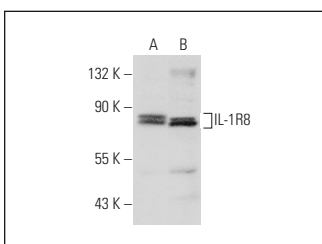
Molecular Weight of IL-1R8: 83 kDa.

Positive Controls: human brain hippocampus extract: sc-364375 or mouse brain extract: sc-2253.

### 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### DATA



IL-1R8 (P-15): sc-161736. Western blot analysis of IL-1R8 expression in human brain (A) and mouse brain (B) tissue extracts.

### 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.