# SANTA CRUZ BIOTECHNOLOGY, INC.

# IL-1Rrp2 (L-14): sc-168170



The Power to Question

# BACKGROUND

IL-1Rrp2 (Interleukin-1 receptor-related protein 2) or IL1RL2, is a member of the interleukin-1/Toll-like receptor family and is highly expressed in brain, skin and mammary and mucosal epithelial cells. IL-1Rrp2 exhibits 42% homology with interleukin-1 type 1 receptor and 26% homology with interleukin-1 type 2 receptor. IL-1Rrp2 mediates NF- $\kappa$ B activation, MAPK activation and inflammatory responses triggered by ligands IL-1F6, IL-1F8 and IL-1F9. Signalling via IL-1Rrp2 also requires IL-1RACP (Interleukin-1 accessory protein). IL-1Rrp2 may play a role in immune defense in the GI tract and skin. IL-1Rrp2 may also be involved in the pathogenesis of rheumatoid arthritis (RA).

#### REFERENCES

- 1. Lovenberg, T.W., et al. 1996. Cloning of a cDNA encoding a novel interleukin-1 receptor related protein (IL 1R-rp2). J. Neuroimmunol. 70: 113-122.
- 2. Dale, M., et al. 1999. Interleukin-1 receptor cluster: gene organization of IL1R2, IL1R1, IL1RL2 (IL-1Rrp2), IL1RL1 (T1/ST2), and IL18R1 (IL-1Rrp) on human chromosome 2q. Genomics 57: 177-179.
- 3. Debets, R., et al. 2001. Two novel IL-1 family members, IL-1  $\delta$  and IL-1  $\epsilon$ , function as an antagonist and agonist of NF- $\kappa B$  activation through the orphan IL-1 receptor-related protein 2. J. Immunol. 167: 1440-1446.
- 4. Berglöf, E., et al. 2003. IL-1Rrp2 expression and IL-1F9 (IL-1H1) actions in brain cells. J. Neuroimmunol. 139: 36-43.
- 5. Towne, J.E., et al. 2004. Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NF-κB and MAPKs. J. Biol. Chem. 279: 13677-13688.
- 6. 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.
- 7. Wang, P., et al. 2005. The interleukin-1-related cytokine IL-1F8 is expressed in glial cells, but fails to induce IL-1 $\beta$  signalling responses. Cytokine 29: 245-250.
- Magne, D., et al. 2006. The new IL-1 family member IL-1F8 stimulates production of inflammatory mediators by synovial fibroblasts and articular chondrocytes. Arthritis Res. Ther. 8: R80.
- Barksby, H.E., et al. 2007. The expanding family of interleukin-1 cytokines and their role in destructive inflammatory disorders. Clin. Exp. Immunol. 149: 217-225.

# CHROMOSOMAL LOCATION

Genetic locus: II1rl2 (mouse) mapping to 1 B.

#### SOURCE

IL-1Rrp2 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of IL-1Rrp2 of mouse origin.

# **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

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

Blocking peptide available for competition studies, sc-168170 P, (100  $\mu g$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

IL-1Rrp2 (L-14) is recommended for detection of IL-1Rrp2 of mouse and rat 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).

Suitable for use as control antibody for IL-1Rrp2 siRNA (m): sc-146215, IL-1Rrp2 shRNA Plasmid (m): sc-146215-SH and IL-1Rrp2 shRNA (m) Lentiviral Particles: sc-146215-V.

Molecular Weight of IL-1Rrp2: 65 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) Immunofluo-rescence: use 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 or our catalog for detailed protocols and support products.