

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Rat                                                                                                                                                                                                                                                                         |
| <b>Specificity</b>        | Detects rat IL-1 Rrp2/IL-1 R6 in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant human (rh) IL-1 R6 is observed and less than 5% cross-reactivity with rhIL-18 Rβ, rhIL-1 RI, a                                      |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant rat IL-1 Rrp2/IL-1 R6<br>Gly22-Tyr340<br>Accession # Q62929                                                                                                                                                                 |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

The Interleukin 1 receptor family (IL-1 R) comprises at least eleven members including IL-1 RI (IL-1 R1), IL-1 RII (IL-1 R2), IL-1 RAcP (IL-1 R3), ST2 (T1/IL-1 R4), IL-18 Ra (IL-1 Rrp/IL-1 R5), IL-1 Rrp2 (IL-1 RL2/IL-1 R6), IL-18 Rb (AcPL/IL-1 R7), IL-1RAPL-1 (TIGIRR-2/IL-1 R8), and TIGIRR-1 (IL-1 R9) (1). All family members possess three immunoglobulin (Ig)-like domains in their extracellular region. Most members also have an intracellular TIR (Toll-like receptor/IL-1 receptor signaling) domain that is also conserved in the Toll-like receptor family. Related proteins, SIGIRR (single Ig domain-containing IL-1 R-related molecule) and IL-18BP, differ from the other members by having only one Ig domain (1). Rat IL-1 Rrp2 cDNA encodes a 561 amino acid (aa) residue precursor protein with a putative 21 aa signal peptide and a 319 aa extracellular domain. It shares 84% and 67% amino acid sequence identity with mouse and human IL-1 Rrp2, respectively. IL-1 Rrp2 is expressed in lung epithelium, brain vasculature, kidney, testis, monocytes, skin-derived keratinocytes, fibroblasts and, to a lesser extent, endothelial cells (2, 3). IL-1 Rrp2 has been shown to mediate the activation of the transcription factor NF-κB by the IL-1 family ligands IL-1 F6, F8 or F9 (also known as IL-1e), with IL-1 RAcP as a co-factor (3, 4). Response to IL-1 F9 is specifically antagonized by IL-1 F5 (also known as IL-1d), an IL-1 family ligand that is most closely related to IL-1ra (3). IL-1 Rrp2, IL-1 F5, and IL-1 F9 are all up-regulated in lesional psoriasis skin, suggesting that the IL-1 Rrp2 mediated signaling pathway may take part in local inflammatory responses (3).

## PRODUCT SPECIFIC NOTICES

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