

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-1 Rrp2/IL-1 R6 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant mouse (rm) IL-1 R1, rmlIL-1 R2, rmlIL-1 R4, human IL-1 R6, mouse IL-1 R8, and rmlIL-1 R9 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-1 Rrp2/IL-1 R6 Asp22-Arg338 (Ala158Val) Accession # Q9ERS7
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse IL-1 Rrp2/IL-1 R6 (Catalog # 2354-RP)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

IL-1 Rrp2, also known as IL-1 R6, is a member of the IL-1 R/TLR superfamily. Members of this superfamily have a characteristic Toll-IL-1 R (TIR) domain in their cytoplasmic region. This superfamily can be further divided into three subgroups based on extracellular region analogies. IL-1 Rrp2 belongs to Subgroup 1 which is characterized by the presence of at least one immunoglobulin-like domain (1). Mouse IL-1 Rrp2/IL-1R6 is a 70 kDa type I transmembrane glycoprotein that is synthesized as a 574 amino acid (aa) precursor. The precursor contains a 21 aa signal sequence, a 317 aa extracellular region, a 21 aa transmembrane segment, and a 215 aa cytoplasmic domain (2). The extracellular region contains three C-type Ig-like domains. Within the extracellular region, mouse IL-1 Rrp2 is 64% and 80% aa identical to human and rat IL-1 Rrp2, respectively. Expression of IL-1 Rrp2 is restricted to lung epithelium, monocytes, skin-derived keratinocytes, fibroblasts and, to a lesser extent, endothelial cells (3). Studies have demonstrated that the functional receptor for IL-1F6, IL-1F8 and IL-1F9 is a combination of IL-1 Rrp2 and IL-1 RACP. This suggests that IL-1 Rrp2 ligands may signal in a similar fashion to IL-1 and IL-18. In each case, there is a binding receptor which, upon ligation, recruits a second receptor as a signaling component, forming an active heterodimeric receptor complex (4).

### References:

1. Dunne, A. and L.A. O'Neill, (2003) *Sci. STKE* Feb 25 (171):re3.
2. Born, T.L. *et al.* (2000) *J. Biol. Chem.* **275**:29946.
3. Lovenberg, T.S. *et al.* (1996) *J. Neuroimmunol.* **70**:113.
4. Towne, J.E. *et al.* (2004) *J. Biol. Chem.* **279**:13677.