

| DESCRIPTION               |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Mouse  |
| <b>Specificity</b>        | Detects mouse IL-1 RII in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) IL-1 RII, rhIL-1 R3, rhIL-1 R8, rhIL-1 R9, rmlIL-18 Rβ or rmSIGIRR is observed. |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 130817  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-1 RII<br>Phe14-Glu355 (predicted)<br>Accession # P27931   |
| <b>Formulation</b>        | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.                  |

| APPLICATIONS   |                                  |  |
|--|----------------------------------|--|
| <b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website. |                                  |  |
|  | <b>Recommended Concentration</b> | <b>Sample</b>  |
| <b>Western Blot</b>  | 1 μg/mL                          | Recombinant Mouse IL-1 RII Fc Chimera (Catalog # 563-MR) |

| PREPARATION AND STORAGE        |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.5 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.<br>*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**

Two distinct types of receptors that bind the pleiotropic cytokines IL-1α and IL-1β have been described. The IL-1 receptor type I is an 80 kDa transmembrane protein that is expressed predominantly by T cells, fibroblasts, and endothelial cells. IL-1 receptor type II is a 68 kDa transmembrane protein found on B lymphocytes, neutrophils, monocytes, large granular leukocytes and endothelial cells. Both receptors are members of the immunoglobulin superfamily and show approximately 28% sequence similarity in their extracellular domains. The two receptor types do not heterodimerize in a receptor complex. Mouse IL-1 RII shares 59% amino acid sequence homology with human IL-1 RII in their extracellular domains.

An IL-1 receptor accessory protein (1) that can heterodimerize with the type I receptor in the presence of IL-1α or IL-1β but not IL-1ra, was identified. This type I receptor complex appears to mediate all the known IL-1 biological responses. The receptor type II has a short cytoplasmic domain and does not transduce IL-1 signals. In addition to the membrane-bound form of IL-1 RII, a naturally-occurring soluble form of IL-1 RII has been described. It has been suggested that the type II receptor, either as the membrane-bound or as the soluble form, serves as a decoy for IL-1 and inhibits IL-1 action by blocking the binding of IL-1 to the signaling type I receptor complex. Recombinant IL-1 soluble receptor type II is a potent antagonist of IL-1 action.

**References:**

1. Greenfeder, S. *et al.* (1995) J. Biol. Chem. **270**:13757.