

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-1 RII in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human IL-1 RII is observed and less than 1% cross-reactivity with recombinant mouse (rm) IL-1 RI, recombinant rat IL-1 Rrp2, rmlL-18 R, and rmlL-18 Rβ is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-1 RII Phe14-Glu355 (predicted) Accession # P27931
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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.

	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	Recombinant Mouse IL-1 RII Fc Chimera (Catalog # 563-MR)
Flow Cytometry	0.25 μg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 μg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Detection of IL-1 RII in EL-4 Mouse Cell Line by Flow Cytometry. EL-4 mouse lymphoblast cell line was stained with Goat Anti-Mouse IL-1 RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF563, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).</p>	<p>Immunohistochemistry</p> <p>IL-1 RII in Mouse Spleen. IL-1 RII was detected in perfusion fixed frozen sections of mouse spleen using Goat Anti-Mouse IL-1 RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF563) at 5 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.