

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 RII in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) IL-1 $\alpha$ , rhIL-1 RI, recombinant mouse (rm) IL-1 $\alpha$ , rhIL-1 $\beta$ , rmIL-1 $\beta$ , recombinant rat IL-1 $\beta$ , rhIL-1ra, rmIL-1ra, and recombinant rhesus monkey IL-1ra is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-1 RII Phe14-Glu343 (Ser56Gly and Glu297Gly) Accession # P27930
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m 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 $\mu$ m filtered solution in PBS.

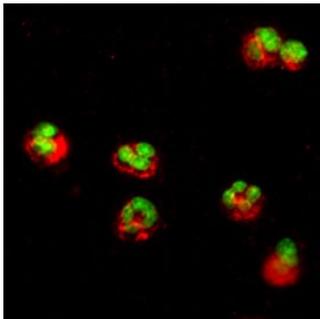
## APPLICATIONS

**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
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human IL-1 RII (Catalog # 263-2R)
<b>Immunocytochemistry</b>	5-15 $\mu$ g/mL	See Below
<b>Neutralization</b>	Measured by its ability to neutralize IL-1 RII-mediated inhibition of proliferation in the D10.G4.1 mouse helper T cell line. The Neutralization Dose (ND <sub>50</sub> ) is typically 15-30 $\mu$ g/mL in the presence of 2 $\mu$ g/mL Recombinant Human IL-1 RII, 50 pg/mL Recombinant Human IL-1 $\beta$ /IL-1F2.	

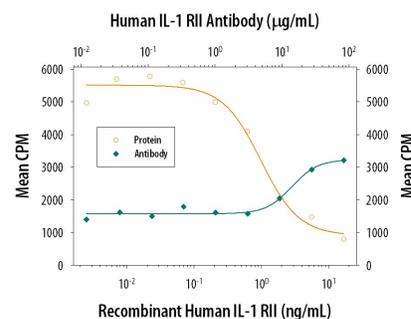
## DATA

### Immunocytochemistry



**IL-1 RII in Human PBMCs.** IL-1 RII was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using 15  $\mu$ g/mL Goat Anti-Human IL-1 RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-263-NA) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

### Neutralization



**IL-1 RII Inhibition of IL-1 $\beta$ /IL-1F2-dependent Cell Proliferation and Neutralization by Human IL-1 RII Antibody.** Recombinant Human IL-1 RII (Catalog # 263-2R) inhibits Recombinant Human IL-1 $\beta$ /IL-1F2 (Catalog # 201-LB) induced proliferation in the D10.G4.1 mouse helper T cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Human IL-1 $\beta$ /IL-1F2 (50 pg/mL) activity elicited by Recombinant Human IL-1 RII (2  $\mu$ g/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-1 RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-263-NA). The ND<sub>50</sub> is typically 15-30  $\mu$ g/mL.

## 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

Two distinct types of receptors that bind the pleiotropic cytokines IL-1 $\alpha$  and IL-1 $\beta$  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.

An IL-1 receptor accessory protein that can heterodimerize with the type I receptor in the presence of IL-1 $\alpha$  or IL-1 $\beta$  but not IL-1ra, was identified (1). 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.