

## DESCRIPTION

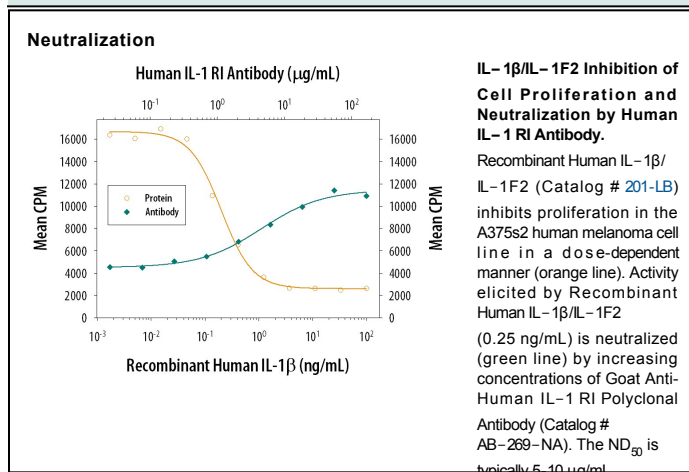
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 RI in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5–10% cross-reactivity with recombinant human IL-1 RII is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Protein A or G purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-1 RI
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

## 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>	1 µg/mL	Recombinant Human IL-1 RI (Catalog # 269-1R)
<b>Neutralization</b>		Measured by its ability to neutralize IL-1β/IL-1F2-induced inhibition of proliferation in the A375s2 human melanoma cell line. The Neutralization Dose (ND <sub>50</sub> ) is typically 5-10 µg/mL in the presence of 0.25 ng/mL Recombinant Human IL-1β/IL-1F2.

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 1 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.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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 identity in their extracellular domains. The two receptor types do not heterodimerize into a receptor complex.

An IL-1 receptor accessory protein that can heterodimerize with the Type I receptor in the presence of IL-1α or IL-1β 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 I is a potent antagonist of IL-1 action.

## References:

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