

## DESCRIPTION

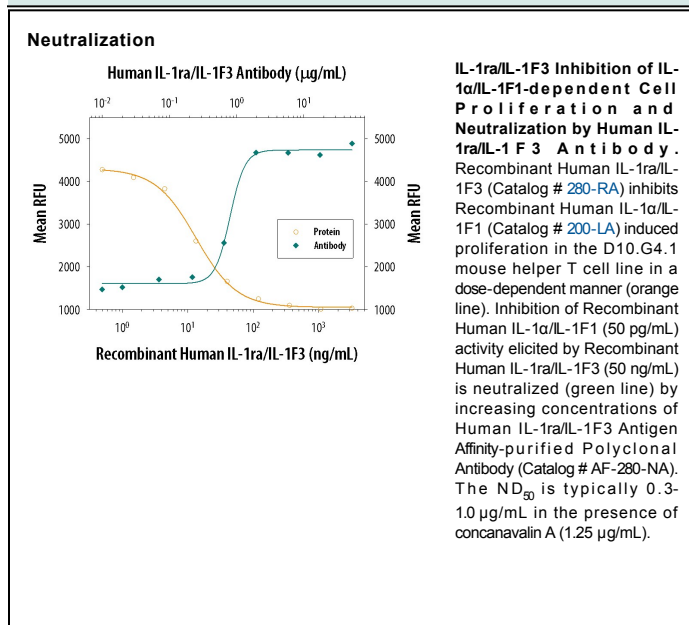
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1ra/IL-1F3 in direct ELISAs and Western blots. In direct ELISAs and Western blots (non-reducing conditions), less than 15% cross-reactivity with recombinant mouse IL-1ra is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IL-1ra/IL-1F3 Arg26-Glu177 Accession # P18510
<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. *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 Human IL-1ra/IL-1F3 (Catalog # 280-RA)
<b>Immunohistochemistry</b>	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human skin
<b>Neutralization</b>	Measured by its ability to neutralize IL-1ra/IL-1F3 inhibition of IL-1α/IL-1F1-dependent proliferation in the D10.G4.1 mouse helper T cell line. Symons, J.A. <i>et al.</i> (1987) in <i>Lymphokines and Interferons, a Practical Approach</i> . Clemens, M.J. <i>et al.</i> (eds): IRL Press. 272. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.3-1.0 µg/mL in the presence of 50 ng/mL Recombinant Human IL-1ra/IL-1F3, 50 pg/mL Recombinant Human IL-1α/IL-1F1 and 1.25 µg/mL concanavalin A.	

## DATA



## 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-1ra was originally isolated from the urine of patients with monocytic leukemia and has also been purified from adherent monocytes. The naturally occurring, fully glycosylated form has an apparent molecular weight of about 25,000 Daltons. The protein shows 26% amino acid homology to IL-1 $\beta$  and 19% homology to IL-1 $\alpha$ . It will compete with either factor for receptor binding, but does not interact with either one. Human IL-1ra will bind to both types of IL-1 receptor (I and II) on human cells, but reportedly will not block binding to the type II receptor on murine pre-B cell lines. The recombinant, non-glycosylated form of IL-1ra blocks binding of IL-1 to its receptor equally as well as the naturally-occurring, glycosylated form. The IL-1ra has been shown to block the inflammatory responses induced by IL-1 both *in vitro* and *in vivo*. Currently, pre-clinical and clinical studies are underway to test possible therapeutic applications for IL-1ra in the treatment of sepsis, rheumatoid arthritis and chronic myelogenous leukemia.