

## DESCRIPTION

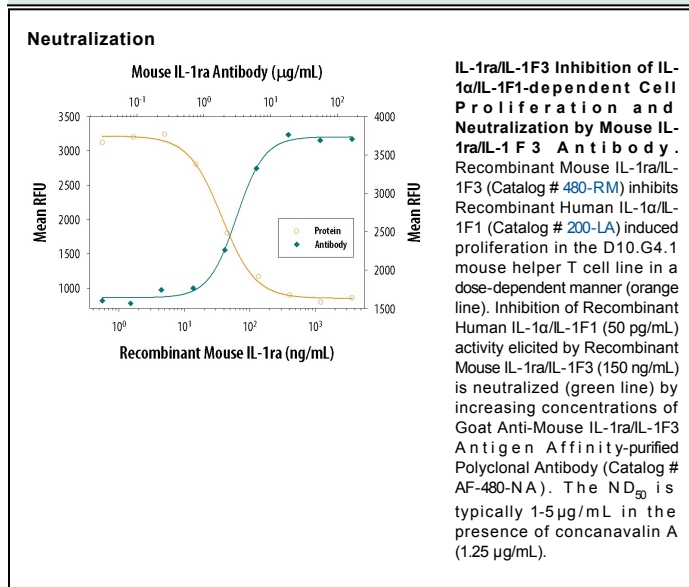
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Mouse   |
| <b>Specificity</b>        | Detects mouse IL-1ra/IL-1F3 in ELISAs and Western blots. In sandwich ELISAs, approximately 45% cross-reactivity with recombinant rat IL-1ra/IL-1F3 and less than 1% cross-reactivity with recombinant human IL-1ra/IL-1F3, recombinant porcine IL-1ra/IL-1F3, and recombinant equine IL-1ra/IL-1F3 is observed. |
| <b>Source</b>             | Polyclonal Goat IgG   |
| <b>Purification</b>       | Antigen Affinity-purified   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse IL-1ra/IL-1F3   |
| <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.<br>*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.

|   | Recommended Concentration | Sample   |
|---|---------------------------|--|
| <b>Western Blot</b>                             | 0.1 µg/mL                 | Recombinant Mouse IL-1ra/IL-1F3 (Catalog # 480-RM)   |
| <b>Mouse IL-1ra/IL-1F3 Sandwich Immunoassay</b> |                           | <b>Reagent</b>   |
| <b>ELISA Capture</b>                            | 0.2-0.8 µg/mL             | Mouse IL-1ra/IL-1F3 Antibody (Catalog # AF-480-NA)   |
| <b>ELISA Detection</b>                          | 0.1-0.4 µg/mL             | Mouse IL-1ra/IL-1F3 Biotinylated Antibody (Catalog # BAF480)   |
| <b>Standard</b>                                 |                           | Recombinant Mouse IL-1ra/IL-1F3 (Catalog # 480-RM)   |
| <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 1-5 µg/mL in the presence of 150 ng/mL Recombinant Mouse 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.<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> | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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. In mouse, IL-1 RII does not bind IL-1ra. 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*. Pre-clinical and clinical studies were done to test possible therapeutic applications for IL-1ra in the treatment of sepsis, rheumatoid arthritis and chronic myelogenous leukemia.