

DESCRIPTION	
<b>Species Reactivity</b>	Porcine
<b>Specificity</b>	Detects porcine IL-1ra/IL-1F3 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant porcine IL-1ra/IL-1F3 His26-Gln177 Accession # Q29056
<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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Porcine IL-1ra/IL-1F3 (Catalog # 780-RA)
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<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 3-15 µg/mL in the presence of 0.48 µg/mL Recombinant Porcine IL-1ra/IL-1F3, 75 pg/mL Recombinant Porcine IL-1α/IL-1F1 and 1.25 µg/mL concanavalin A.	

## DATA

### Neutralization

**IL-1ra/IL-1F3 Inhibition of IL-1α/IL-1F1-dependent Cell Proliferation and Neutralization by Porcine IL-1ra/IL-1F3 Antibody.**  
Recombinant Porcine IL-1ra/IL-1F3 (Catalog # 780-RA) inhibits Recombinant Porcine IL-1α/IL-1F1 (Catalog # 680-PI) induced proliferation in the D10.G4.1 mouse helper T cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Porcine IL-1α/IL-1F1 (75 pg/mL) activity elicited by Recombinant Porcine IL-1ra/IL-1F3 (0.48 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Porcine IL-1ra/IL-1F3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF780). The ND<sub>50</sub> is typically 3-15 µg/mL in the presence of concanavalin A (1.25 µg/mL).

### Immunocytochemistry

**IL-1ra/IL-1F3 in Porcine PBMCs.** IL-1ra/IL-1F3 was detected in immersion fixed porcine peripheral blood mononuclear cells (PBMCs) using Goat Anti-Porcine IL-1ra/IL-1F3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF780) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane and cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

## 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>	<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

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-1β and 19% homology to IL-1α. 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 receptors (I and II) on human cells, but reportedly will not block binding to the type II receptor on murine pre-B cell lines. IL-1ra has been shown to block the inflammatory responses induced by IL-1 both *in vitro* and *in vivo*. Human, mouse and rat IL-1ra all share approximately 80% homology with porcine IL-1ra.