

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-1 R1 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 129304
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-1 RI Leu20-Lys338 Accession # P13504
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

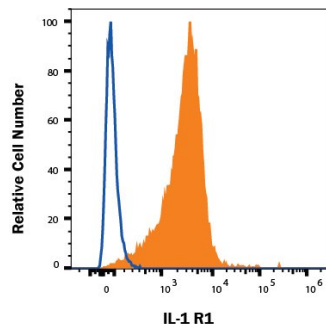
## APPLICATIONS

**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>	1 µg/mL	Recombinant Mouse IL-1 RI Fc Chimera (Catalog # <a href="#">771-MR</a> )
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	RAW264 cells
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

### Flow Cytometry



### Detection of IL-1 RI in RAW264 cells by Flow Cytometry.

RAW264 cells were stained with Rat Anti-Mouse IL-1 RI Monoclonal Antibody (Catalog # MAB7712, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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

The type I IL-1 receptor (IL-1 RI, designated IL-1 R1 and CD121a) is one of at least nine members of the IL-1 R family within the Toll/IL-1 R (TIR) superfamily. IL-1 RI is an ~80 kDa type I transmembrane (TM) protein that binds the pleiotropic cytokines IL-1α and IL-1β, plus the IL-1 receptor antagonist (IL-1 Ra). Signal transduction requires complex formation with the IL-1 R accessory protein (IL-1 R AcP/IL-1 R3), another type I TM protein. This complex recruits the adaptor protein MyD88 to initiate signaling in the NFκB pathway. Mouse IL-1 RI cDNA encodes a 576 amino acid (aa) protein that contains a 19 aa signal sequence, a 319 aa extracellular domain (ECD) with three C2-type Ig-like domains, a 21 aa TM domain and a 217 aa cytoplasmic region with a TIR domain. Mouse IL-1 RI shares 64%, 83%, 60%, 61% and 55% aa identity with human, rat, canine, equine and bovine IL-1 RI, respectively. The role of IL-1 in inflammation is under several levels of control, including expression and activation of IL-1α and IL-1β, expression of IL-1 RI and its accessory and adaptor proteins, and negative regulators such as the IL-1 receptor family member, IL-1RII/IL-1R2. IL-1 RI is expressed predominantly by T cells, fibroblasts, and endothelial cells and mediates acute phase inflammatory responses including fever.