

## DESCRIPTION

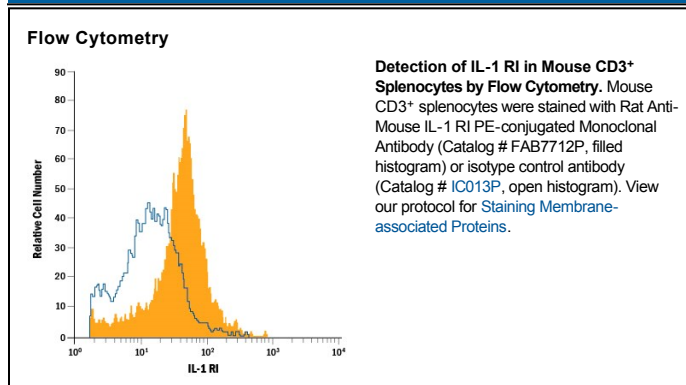
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-1 RI in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 129304
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-1 RI Leu20-Lys338 Accession # P13504
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## 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>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

## 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-1 $\alpha$  and IL-1 $\beta$ , 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 NF $\kappa$ B 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-1 $\alpha$  and IL-1 $\beta$ , expression of IL-1 RI and its accessory and adaptor proteins, and negative regulators such as the IL-1-receptor family member, IL-1 RII/IL-1 R2. IL-1 RI is expressed predominantly by T cells, fibroblasts, and endothelial cells and mediates acute phase inflammatory responses including fever.