

DESCRIPTION

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| Species Reactivity | Mouse |
| Specificity | Detects mouse IL-1 R1 in direct ELISAs and Western blots. |
| Source | Monoclonal Rat IgG _{2B} Clone # 129304 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant mouse IL-1 RI Leu20-Lys338 Accession # P13504 |
| Conjugate | Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm |
| Formulation | Supplied 0.2 mg/mL 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 |
|-----------------------|---------------------------------|-------------------------------------|
| Flow Cytometry | 0.25-1 µg/10 ⁶ cells | Mouse B220 ⁺ splenocytes |

PREPARATION AND STORAGE

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| 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. <ul style="list-style-type: none"> 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 α and IL-1 β , 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 κ 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 α and IL-1 β , expression of IL-1 RI and its accessory and adaptor proteins, and negative regulators such as the IL-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.

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