

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-18 R β /IL-1 R7 in direct ELISAs and Western blots. In direct ELISAs, 15% cross-reactivity with recombinant human (rh) IL-1 RII is observed and 2% cross-reactivity with rhIL-1 R9 is observed. Also in direct ELISAs, no cross-reactivity with rhIL-1 R1, rhIL-1 RacP/IL-1 R3, rhIL-1 R4, rhIL-18 R α /IL-1 R5, rhIL-1 R6, rhIL-1 R8, or recombinant mouse (rm) IL-18 R β /IL-1 R7 is observed. In Western blots, approximately 100% cross-reactivity with rmIL-18 R β is observed and no cross-reactivity with rhIL-18 R α /IL-1 R5, rhIL-1 RacP/IL-1 R3, rhIL-1 R1, rhIL-1 RII, or rhIL-1 Rrp2/IL-1 R6 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 132029
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-18 R β /IL-1 R7 Met1-Arg356 Accession # O95256
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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 μ g/10 ⁶ cells	KG-1 human acute myelogenous leukemia cell line

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

IL-18, originally described as an interferon- γ inducing factor (IGIF), is a member of the IL-1 family of cytokines that has multiple immunoregulatory functions. It has potent IFN- γ inducing activities and plays a key role in the activation of T helper type 1 (Th1) responses. The functional IL-18 receptor complex consists of two components, the IL-18 R α (IL-1 R5) and IL-18 R β (also termed IL-1 R7 and AcPL) subunits. Both subunits are members of the IL-1 receptor superfamily. Although IL-18 R α by itself binds IL-18 with low-affinity and IL-18 R β does not bind IL-18 *in vitro*, co-expression of IL-18 R α and IL-18 R β is required for high-affinity binding and IL-18 responsiveness. Human IL-18 R β cDNA encodes a 599 amino acid (aa) residue precursor type I membrane protein with a 14 aa signal peptide, a 342 aa extracellular region containing three immunoglobulin-like domains, a single transmembrane domain and a 222 aa cytoplasmic domain. Human and mouse IL-18 R β share 65% aa sequence identity. The expression of IL-18 R β parallels that of IL-18 R α and is detected in numerous tissues including lung, spleen, leukocytes and colon.

References:

1. Born, T.L. *et al.* (1998) J. Biol. Chem. **273**:29445.
2. Okamura, H. *et al.* (2000) in *Cytokine Reference*, Vol. 2:1605, Academic Press.

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