

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects Recombinant Human IL-18 R $\alpha$ /IL-1 R5 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-1 R1, rhIL-1 RII, rhIL-1 R3, rhIL-1 R4, rhIL-1 R6, rhIL-1 R7, rhIL-1 R8, rhIL-1 R9, rhSIGIRR or recombinant mouse IL-18 R $\alpha$ is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 70625
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-18 R $\alpha$ /IL-1 R5 Glu20-Arg329 Accession # Q13478
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells treated with PHA and Recombinant Human IL-2 (Catalog # 202-IL)

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### BACKGROUND

Interleukin 18 (IL-18) is a member of the IL-1 family of cytokines and shares numerous immunoregulatory functions with IL-12. The functional IL-18 receptor complex is composed of two subunits designated IL-18 R $\alpha$  (also termed IL-1 R5 and IL-1 Rrp) and IL-18 R $\beta$  (also termed IL-1 R7 and AcPL). Both IL-18 R $\alpha$  and IL-18 R $\beta$  belong to the IL-1 receptor superfamily. Although IL-18 R by itself binds IL-18 with low affinity and IL-18 R $\beta$  does not bind IL-18 *in vitro*, co-expression of IL-18 R $\alpha$  and IL-18 R $\beta$  is required for high affinity binding and IL-18 responsiveness. Human IL-18 R cDNA encodes a 541 amino acid (aa) precursor type I membrane protein with a hydrophobic signal, an extracellular domain comprised of three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic region of approximately 200 aa. Human and mouse IL-18 R share 65% amino acid sequence homology. IL-18 R is widely expressed in numerous tissues including spleen, thymus, leukocyte, liver, lung, heart, small and large intestine, prostate and placenta.

#### References:

1. Parnet, P. *et al.* (1996) J. Biol. Chem. **271**:3967.
2. Torigoe, K. *et al.* (1997) J. Biol. Chem. **272**:25737.
3. Born, T.L. *et al.* (1998) J. Biol. Chem. **273**:29445.

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