

DESCRIPTION

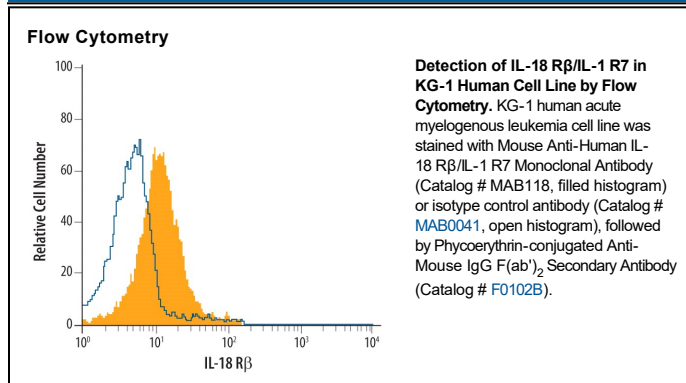
Species Reactivity	Human
Specificity	Detects human IL-18 R β /IL-1 R7 in direct ELISAs and Western blots. In direct ELISAs, 15% cross-reactivity with recombinant human (rh) IL-1 RII is observed and 2% cross-reactivity with rhIL-1 R9 is observed. Also in direct ELISAs, no cross-reactivity with rhIL-1 RI, 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 rmlIL-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 RI, 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
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m 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 μ m 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.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	Recombinant Human IL-18 R β /IL-1 R7 Fc Chimera (Catalog # 118-AP)
Flow Cytometry	0.25 μ g/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.