

DESCRIPTION

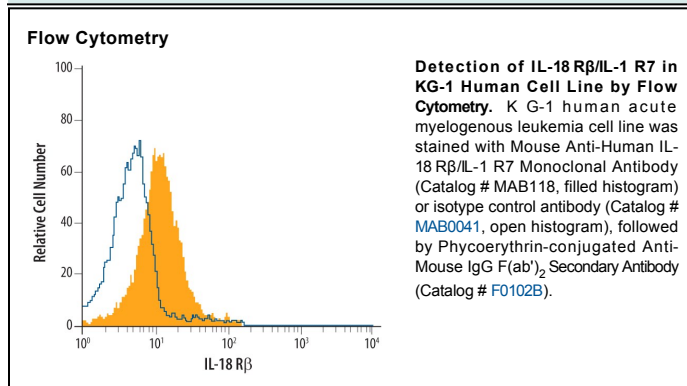
| | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human IL-18 R β /IL-1 R7 in direct ELISAs and Western blots. In direct ELISAs, 15% cross-reactivity with recombinant human (rh) IL-1 RII is observed and 2% cross-reactivity with rhIL-1 R9 is observed. Also 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 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 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 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 |

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.