

DESCRIPTION

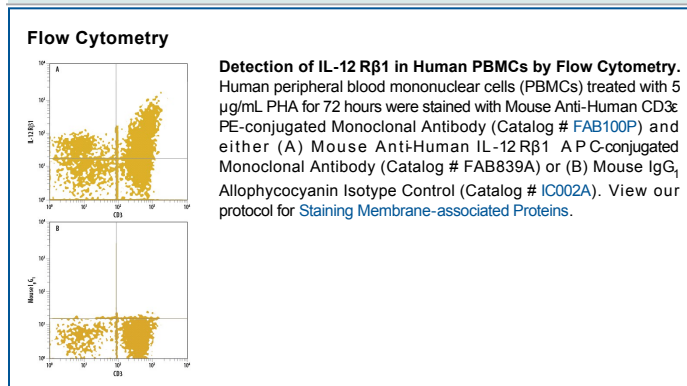
| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human IL-12 Rβ1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse IL-12 Rβ1 is observed. |
| Source | Monoclonal Mouse IgG ₁ Clone # 69310 |
| Purification | Protein A or G purified from ascites |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human IL-12 Rβ1 Cys24-Glu540 Accession # P42701 |
| Conjugate | Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm |
| Formulation | Supplied 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 | 10 μL/10 ⁶ cells | See Below |

DATA



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

Interleukin12 (IL-12) is a key mediator of cellular-immunity and induces the differentiation of Th1 cells from precursor T helper cells. The biological activities of IL-12 are mediated through the high-affinity receptor complex composed of two subunits designated IL-12 Rβ1 and IL-12 Rβ2. Individually, IL-12 Rβ1 and IL-12 Rβ2 bind IL-12 with low affinity. Co-expression of both subunits confers high-affinity binding and is required for IL-12 activity. Both IL-12 receptor subunits are type I transmembrane proteins that share similarities with the gp130/G-CSF R subgroup in the cytokine receptor superfamily. IL-12 Rβ1 cDNA encodes a 662 amino acid (aa) protein with a putative 23 aa signal peptide that is cleaved to generate the mature protein with a 522 aa extracellular domain, a 25 aa transmembrane domain and a 92 aa cytoplasmic region. Expression of IL-12 Rβ1 is detected in activated T cells, NK cells and B cells. The expression of IL-12 Rβ2 is more restricted and appears to be limited to Th2 cells.

References:

1. Gately, M.K. *et al.* (1998) *Annu. Rev. Immunol.* **16**:495.