

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-12 R β 1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse IL-12 R β 1 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 R β 1 Cys24-Glu540 Accession # P42701
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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	Human peripheral blood mononuclear cells treated with PHA

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 R β 1 and IL-12 R β 2. Individually, IL-12 R β 1 and IL-12 R β 2 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 R β 1 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 R β 1 is detected in activated T cells, NK cells and B cells. The expression of IL-12 R β 2 is more restricted and appears to be limited to Th2 cells.

References:

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

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