Human IL-12 Rβ1 Antibody

Monoclonal Mouse IgG_1 Clone # 69310

Catalog Number: MAB839

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
Formulation	Lyophilized from a 0.2 μm 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 μm 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
Flow Cytometry	2.5 µg/10^6 cells	Human peripheral blood mononuclear cells treated with PHA
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

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.** ● 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

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.

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