

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-12 R β 1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-12 R β 1 Cys24-Glu540 Accession # P42701
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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	0.1 μ g/mL	Recombinant Human IL-12 R β 1 Fc Chimera (Catalog # 839-B1)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

Interleukin 12 (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 membrane 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) residue protein with a putative 23 aa residue signal peptide that is cleaved to generate the mature protein with a 522 aa residue extracellular domain, a 25 aa residue transmembrane domain and a 92 aa residue cytoplasmic region. Expression of IL-12 R β 1 has been 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.