

Recombinant Murine Interleukin 12a, P35-P40

Cat. No. IL12a-210M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse IL-12 produced in <i>Sf9 insect cells</i> is a glycosylated disulfide-linked heterodimeric polypeptide chain of 506 amino acids having a molecular mass of 75 kDa consisting of disulfide-linked 35 kDa (p35) and 40 kDa (p40) subunits. It has been purified by using proprietary chromatographic techniques. It is expressed in Sf9 cells. MW=75kDa.
Species	Mouse
Source	Sf9 Cells
Description	IL-12 is a potent regulator of cell mediated immune responses and it induces IFN-gamma production by NK and T cells. It is produced by activated monocytes/macrophage cells, B lymphocytes and connective tissue type mast cells. Among its biological activities IL-12 promotes the growth and activity of activated NK, CD4+ and CD8+ cells and induces the development of IFN-gamma producing Th1 cells. Recombinant mouse IL-12 produced in Sf9 insect cells is a glycosylated disulfide-linked heterodimeric polypeptide chain of 506 amino acids having a molecular mass of 75 kDa consisting of disulfide-linked 35 kDa (p35) and 40 kDa (p40) subunits. It has been purified by using proprietary chromatographic techniques.
Purity	Greater than 95% (determined by SDS-PAGE and HPLC analysis).
Specific Activity	NA.
Endotoxin Level	< 0.1 ng per g of rMu IL-12-p40 (1EU/g).

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Biological Activity	The ED ₅₀ , as determined by the dose dependent secretion of interferon-gamma from PHA and IL-2 activated mouse splenocytes that have been co-stimulated with PMA, is 0.01- 0.05 ng/ml.
Formulation	Lyophilized from a sterile-filtered solution with no additives.
Reconstitution	Please Note: Always centrifuge product before opening vial. The lyophilized protein should be reconstituted with distilled, sterile water to a concentration of 0.1-1.0 mg/ml. For further dilution, carrier protein (0.1% BSA or HSA) should be added to avoid loss of bioactivity.
Storage	The lyophilized protein, though stable at room temperature for up to 3 weeks, is best stored desiccated at -20°C. Reconstituted protein should be used immediately or stored long-term in undiluted working aliquots at -20°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	IL12a interleukin 12a [Mus musculus]
Synonyms	IL12a; interleukin 12a; p35; LI12a; IL-12a; IL-12p35; MGC151228; MGC151232; interleukin 12a p35 subunit; interleukin 12a
Gene ID	16159
mRNA Refseq	NM_001159424
Protein Refseq	NP_001152896
UniProt ID	P43431

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Chromosome Location	3 E1; 3 37.0 cM
Pathway	Allograft rejection; Cytokine-cytokine receptor interaction; RIG-I-like receptor signaling pathway; Jak-STAT signaling pathway; Toll-like receptor signaling pathway; Type I diabetes mellitus
Function	cytokine activity; growth factor activity; interleukin-12 beta subunit binding; interleukin-12 receptor binding
PDB rendering based on 1f45.	