

Active Recombinant Mouse IL12 protein, His-tagged

Cat. No. IL12-28M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This product contains IL12A & IL12B heterodimer. A DNA sequence encoding the p35 subunit of mouse IL12, termed as IL12A (P43431) (Met 1-Ala 215) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 1; A DNA sequence encoding the p40 subunit of mouse IL12, termed as IL12B (P43432) (Met 1-Ser 335) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the heterodimer was purified.
Species	Mouse
Source	Mammalian Cells
ProteinLength	1-215;1-335 a.a.
Description	Interleukin-12 (IL-12), also known as NKSF, TCMF, CLMF and TSF, is a heterodimeric cytokine composed of p35 and p40 subunits. It is produced by monocytes, macrophages, B cells and dendritic cells in response to bacterial lipopolysaccharides and intracellular pathogens. IL-12 signals through the IL-12 receptor complex, which is comprised of IL-12 R β 1 and IL-12 R β 2. IL-12 induces the proliferation and activation of hematopoietic stem cells, natural killer cells and T- cells. It is indispensable during the development of Th1 cells, leading to the production of IFN-gamma and IL-2.
Form	Lyophilized from sterile PBS, pH 7.4.
Bio-activity	1. Measured by its ability to bind biotinylated recombinant mouse IL12RB2 in a

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	functional ELISA. 2. Measured in a cell proliferation assay using Anti-CD3-stimulated PBMC. The ED50 for this effect is typically 2-8 ng/mL.
Molecular Mass	The recombinant mouse IL12 heterodimer of IL12A/IL12B, comprises 528 (204 + 324) amino acids and has a calculated molecular mass of 60.3 (23.1 + 37.2) kDa. The apparent molecular mass of rh IL12 heterodimer is approximately 28 & 47 kDa respectively in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method
Purity	> 90 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	interleukin 12a [<i>Mus musculus</i> (house mouse)]
Official Symbol	IL12a
Synonyms	CLMF; CLMF2; IL-12A; IL-12B; IL12; IMD28; IMD29; NFSK; NKSF; NKSF1; NKSF2; P35; IL-12a; IL-12b; IL-12p35; IL-12p40; IL12p40; IL12a; p35; p40
Gene ID	16159
mRNA Refseq	NM_001159424.2

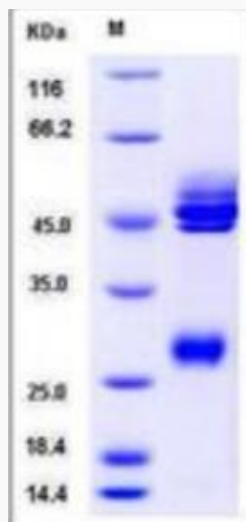
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Protein Refseq NP_001152896.1

UniProt ID P43431



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