

Active Recombinant Mouse Interleukin 12b, His-tagged

Cat. No. IL12b-5647M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse IL12b protein was expressed in Murine myeloma cellline. Gln20-Glu561, with a C-terminal 6-His tag.
Species	Mouse
Source	Mammalian Cells
Protein Length	20-561 a.a.
Description	IL12b is a 100 kDa type I transmembrane protein that belongs to the gp130/G-CSF R family of cytokine receptors. IL12b is a common subunit of both the IL-12 and IL-23 receptor complexes which play distinct but related roles in T cell mediated inflammatory reactions. Mature mouse IL12b contains a 546 amino acid (aa) extracellular domain (ECD) with five fibronectin type III repeats, and a 147 aa cytoplasmic domain. Within the ECD, mouse IL12b shares 85% and 52% aa sequence identity with rat and human IL12b, respectively. It shares 16%-21% aa sequence identity with the ECDs of mouse gp130, LIF R, G-CSF R, and IL-23 R. IL-12 and IL-23 are disulfide linked heterodimeric cytokines that share a common p40 subunit.
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
N-terminal Sequence	Gln20 predicted
Molecular Weight	61.3 kDa

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Activity	Measured by its binding ability in a functional ELISA. Immobilized rIL-12 R 1 at 10 µg/mL (100 µL/well) can bind rIL-12 with a linear range of 0.3-20 µg/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
SDS-PAGE	95-110 kDa, reducing conditions.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Reconstitution	100 µg/mL in sterile PBS
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. 3 months, -20 to -70°C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	IL12b interleukin 12b [Mus musculus]
Official Symbol	IL12b
Synonyms	IL12b; interleukin12b; p40; IL-12b; IL12p40; IL-12p40; interleukin-12 subunit beta; CLMF p40; IL-12 p40; IL-12 subunit p40; IL-23 subunit p40; cytotoxic lymphocyte maturation factor 40 kDa subunit
Gene ID	16160
mRNA Refseq	NM_008352
Protein Refseq	NP_032378

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UniProt ID	Q60837
Chromosome Location	11
Pathway	African trypanosomiasis; Allograft rejection; Amoebiasis; Chagas disease (American trypanosomiasis); Cytokine-cytokine receptor interaction; Herpes simplex infection; Influenza A; Jak-STAT signaling pathway; Legionellosis; Leishmaniasis; Measles; Pertussis; RIG-I-like receptor signaling pathway; Toll-like receptor signaling pathway; Toxoplasmosis
Function	contributes_to cytokine activity; cytokine receptor activity; contributes_to cytokine receptor binding; identical protein binding; interleukin-12 alpha subunit binding; protein binding; protein heterodimerization activity
PDB rendering based on 1f42.	