

Active Recombinant Mouse interleukin 12 Protein, Flag tagged

Cat. No. IL12b-175M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse IL-12B protein (P43432) (Met 23-Ser 335) and mouse IL-12A protein (P43431) (Arg 23-Ala 215) linked by a GSGSSRGGSGSGGSGGGGSK linker with a Flag tag at the C-terminus was expressed in HEK293.
Species	Mouse
Source	HEK293
ProteinLength	IL-12B: 23-335aa IL-12A: 23-215aa
Description	Cytokine that can act as a growth factor for activated T and NK cells, enhance the lytic activity of NK/lymphokine-activated killer cells, and stimulate the production of IFN-gamma by resting PBMC. Associates with IL23A to form the IL-23 interleukin, a heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of pro-inflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.
Tag	C-Flag
Bio-activity	Measured by its ability to induce Interferon gamma secretion by human natural killer

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lymphoma NK-92 cells. The ED50 for this effect is typically 15-90 ng/mL.

Molecular Mass	60.6 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.
GeneID 2	16159

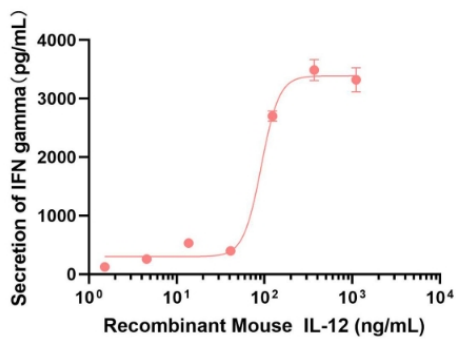
GENE INFORMATION

Gene Name	IL12b interleukin 12b [Mus musculus (house mouse)]
Official Symbol	IL12b
Synonyms	IL12B; interleukin 12b; interleukin-12 subunit beta; CLMF p40; IL-12 p40; IL-12 subunit p40; IL-23 subunit p40; cytotoxic lymphocyte maturation factor 40 kDa subunit; p40; IL-12b; IL12p40; IL-12p40;
Gene ID	16160

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mRNA Refseq	NM_008352										
Protein Refseq	NP_032378										
UniProt ID	P43432										
Gene Name 2	Il12a interleukin 12a [Mus musculus (house mouse)]										
Official Symbol 2	IL12A										
Synonyms 2	IL12A; interleukin 12a; interleukin-12 subunit alpha; CLMF p35; IL-12 subunit p35; interleukin 12a p35 subunit; cytotoxic lymphocyte maturation factor 35 kDa subunit; p35; LI12a; IL-12a; IL-12p35; MGC151228; MGC151232;										
mRNA Refseq 2	NM_001159424										
Protein Refseq 2	NP_001152896										
UniProt ID 2	P43431										
Activity	 <table border="1"> <caption>Approximate data points from the IFN gamma secretion curve</caption> <thead> <tr> <th>Recombinant Mouse IL-12 (ng/mL)</th> <th>Secretion of IFN gamma (pg/mL)</th> </tr> </thead> <tbody> <tr> <td>10⁰</td> <td>~200</td> </tr> <tr> <td>10¹</td> <td>~400</td> </tr> <tr> <td>10²</td> <td>~2800</td> </tr> <tr> <td>10³</td> <td>~3500</td> </tr> </tbody> </table>	Recombinant Mouse IL-12 (ng/mL)	Secretion of IFN gamma (pg/mL)	10 ⁰	~200	10 ¹	~400	10 ²	~2800	10 ³	~3500
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Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED50 for this effect is typically 15-90 ng/mL.

Protein on SDS-PAGE under reducing (R) condition.

