

Animal-Free IL-12 beta Protein, Mouse (His)

Cat. No.:	HY-P700191AF
Synonyms:	Interleukin-12 subunit beta; IL-12 subunit p40; IL-12B; Cytotoxic Lymphocyte Maturation Factor 40 kDa subunit (CLMF p40); NK cell Stimulating Factor Chain 2
Species:	Mouse
Source:	E. coli
Accession:	P43432 (M23-S335)
Gene ID:	16160
Molecular Weight:	Approximately 36.60 kDa

PROPERTIES

AA Sequence	<pre> M W E L E K D V Y V V E V D W T P D A P G E T V N L T C D T P E E D D I T W T S D Q R H G V I G S G K T L T I T V K E F L D A G Q Y T C H K G G E T L S H S H L L L H K K E N G I W S T E I L K N F K N K T F L K C E A P N Y S G R F T C S W L V Q R N M D L K F N I K S S S S S P D S R A V T C G M A S L S A E K V T L D Q R D Y E K Y S V S C Q E D V T C P T A E E T L P I E L A L E A R Q Q N K Y E N Y S T S F F I R D I I K P D P P K N L Q M K P L K N S Q V E V S W E Y P D S W S T P H S Y F S L K F F V R I Q R K K E K M K E T E E G C N Q K G A F L V E K T S T E V Q C K G G N V C V Q A Q D R Y Y N S S C S K W A C V P C R V R S </pre>
Biological Activity	Measure by its ability to induce proliferation in T-cell enriched PBMC. The ED ₅₀ for this effect is <0.3 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The IL-12 beta Protein, a cytokine, functions as a growth factor for activated T and NK cells, enhancing the lytic activity of NK/lymphokine-activated killer cells and stimulating the production of IFN-gamma by resting PBMC. Furthermore, it associates with IL23A to form the IL-23 interleukin, a heterodimeric cytokine that plays a crucial role in both innate and
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adaptive immunity. IL-23, when bound to a heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, preferentially stimulating memory T-cells over naïve T-cells and promoting the production of pro-inflammatory cytokines. This interleukin may constitute, along with IL-17, an acute response to infection in peripheral tissues. However, IL-23's involvement extends to inducing autoimmune inflammation, potentially contributing to autoimmune inflammatory diseases, and it may play a significant role in tumorigenesis.

Caution: Product has not been fully validated for medical applications. For research use only.

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