

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

Cat. No.:	HY-P700100AF
Synonyms:	Interleukin-12 subunit beta; IL-12B; Cytotoxic lymphocyte maturation factor 40 kDa subunit; CLMF p40; IL-12 subunit p40; NK cell stimulatory factor chain 2; NKSF2; IL12B; NKSF2
Species:	Human
Source:	E. coli
Accession:	P29460 (I23-S328)
Gene ID:	3593
Molecular Weight:	Approximately 35.64 kDa

PROPERTIES

AA Sequence	<pre> M I W E L K K D V Y V V E L D W Y P D A P G E M V V L T C D T P E E D G I T W T L D Q S S E V L G S G K T L T I Q V K E F G D A G Q Y T C H K G G E V L S H S L L L L H K K E D G I W S T D I L K D Q K E P K N K T F L R C E A K N Y S G R F T C W W L T T I S T D L T F S V K S S R G S S D P Q G V T C G A A T L S A E R V R G D N K E Y E Y S V E C Q E D S A C P A A E E S L P I E V M V D A V H K L K Y E N Y T S S F F I R D I I K P D P P K N L Q L K P L K N S R Q V E V S W E Y P D T W S T P H S Y F S L T F C V Q V Q G K S K R E K K D R V F T D K T S A T V I C R K N A S I S V R A Q D R Y Y S S S W S E W A S V P C S </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
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	IL-12 beta Protein, a multifunctional cytokine, serves as a growth factor for activated T and NK cells, amplifies the lytic activity of NK/lymphokine-activated killer cells, and induces the production of IFN-gamma by resting peripheral blood mononuclear cells (PBMC). When combined with IL23A, it forms the heterodimeric cytokine IL-23, which plays a pivotal role in both innate and adaptive immunity. This cytokine acts by binding to a receptor complex consisting of IL12RB1 and IL23R, initiating the Jak-Stat signaling cascade. Notably, IL-23 preferentially activates memory T-cells over naive T-cells and fosters
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the production of pro-inflammatory cytokines. The association of IL-23 with autoimmune inflammation suggests its potential involvement in autoimmune inflammatory diseases and underscores its significance in tumorigenesis.

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

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