

IL-12 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P701008
Synonyms:	CLMF; CLMF2; IL-12A; IL-12B; IL12; IL12 p70; IMD28; IMD29; NFSK; NKSF1; NKSF2; P35; IL-12 subunit p35; IL12A; interleukin 12
Species:	Cynomolgus
Source:	HEK293
Accession:	G7P6S2 (I23-S328)&XP_005546300.2 (R57-S253)
Gene ID:	/&102115316
Molecular Weight:	45-48 kDa (IL-12B) & 38-44 kDa (IL-12A)

PROPERTIES

AA Sequence

```

A 1 : 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 G 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 A L S H S L L   L L H K K E D G I W
S T D V 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 N P Q G V T C G A   V 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 R L P I E V M V   D A I 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 I Q V Q G K S K   R E K K D R I F T D   K T S A T V I C R K   N A S F S V Q A Q D
R Y Y S S S W S E W   A S V P C S

A 2 : R N L S V A T
P G P
E M F P C L H H S Q   N L L K A A S N T L   Q K A R Q I L E F Y   P C T S E E I D H E
D I T K D K T S T V   E A C L P L E L I K   N E S C L N S R E T   S F I T N G S C L A
S R K T S F M M A L   C L R S I Y E D L K   M Y Q V E F K T M N   A K L L R D P K R Q
I F L D Q N I L G V   I D E L M Q A L N F   N S E T V P Q K S S   L E E P D F Y K T K
I K L C I L L H A F   R I R A V T I D R V   M S Y L N A S
  
```

Biological Activity	<p>1. Immobilized Cynomolgus IL-12, His Tag at 0.5 µg/mL (100 µl/well) on the plate. Dose response curve for Anti-IL-12 Antibody, hFc Tag with the EC₅₀ of <8.5 ng/mL determined by ELISA.</p> <p>2. Measured by its ability to enhance IFN-gamma secretion in NK-92 human natural killer lymphoma cells. The ED₅₀ for this effect is 0.7733 ng/mL, corresponding to a specific activity is 1.293×10⁶ U/mg.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

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 Protein forms a heterodimer with IL23A, resulting in the creation of the IL-23 interleukin, a cytokine with diverse functions in innate and adaptive immunity. In collaboration with IL-17, IL-23 may orchestrate an acute response to infection in peripheral tissues. Binding to a heterodimeric receptor complex composed of IL12RB1 and IL23R, IL-23 activates the Jak-Stat signaling cascade, preferentially stimulates memory T-cells over naive T-cells, and facilitates the production of pro-inflammatory cytokines. Furthermore, IL-23 has been implicated in inducing autoimmune inflammation, potentially playing a role in autoimmune inflammatory diseases and tumorigenesis. This cytokine acts as a growth factor for activated T and NK cells, enhances the lytic activity of NK/lymphokine-activated killer cells, and stimulates the production of IFN-gamma by resting PBMC.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA