

# **Product datasheet for TP728237**

#### OriGene Technologies, Inc.

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## Recombinant IL-12 (p70) (Interleukin-12 p70), Human, HEK293

#### **Product data:**

**Product Type:** Recombinant Proteins

**Description:** Recombinant IL-12 (p70) (Interleukin-12 p70), Human, HEK293

Species: Human
Expression Host: HEK293

**Expression cDNA Clone** 

or AA Sequence:

IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLDQSSEVLGSGKTLTIQVKEFGDAGQYTCHK GGEVLSHSLLLLHKKEDGIWSTDILKDQKEPKNKTFLRCEAKNYSGRFTCWWLTTISTDLTFSVKSSRGSSD PQGVTCGAATLSAERVRGDNKEYEYSVECQEDSACPAAEESLPIEVMVDAVHKLKYENYTSSFFIRDIIKPDP PKNLQLKPLKNSRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNASISV

PKNLQLKPLKNSRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNASISV RAQDRYYSSSWSEWASVPCSGSTSGSGKPGSGEGSTKGRNLPVATPDPGMFPCLHHSQNLLRAVSNML QKARQTLEFYPCTSEEIDHEDITKDKTSTVEACLPLELTKNESCLNSRETSFITNGSCLASRKTSFMMALCLSS IYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNMLAVIDELMQALNFNSETVPQKSSLEEPDFYKTKIKLCI

LLHAFRIRAVTIDRVMSYLNASHHHHHH with polyhistidine tag at the C-terminus.

Tag: His Tag (C-term)

**Predicted MW:** The protein has a calculated MW of 59.55 kDa. The protein migrates as 63-75 kDa under

reducing condition (SDS-PAGE analysis).

**Purity:** >98% as determined by SDS-PAGE.

Buffer: The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 7.4.

**Bioactivity:** Measure by its ability to induce IFN gamma secretion in PHA-activated human peripheral

blood lymphocytes (PBMC). The ED<sub>50</sub> for this effect is 0.05-0.2 ng/mL.

**Endotoxin:** <0.1 EU per 1 μg of the protein by the LAL method.

**Reconstitution Method:** Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the

lyophilized protein in sterile  $H_2O$  to a concentration not less than 100  $\mu$ g/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved.

Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

**Applications:** Cell culture

Storage: Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to

 $8^{\circ}\text{C}$  for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -

20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.





UniProt ID: P29459

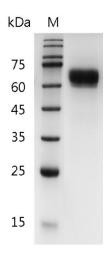
Synonyms: Interleukin-12, NKSF,Cytotoxic Lymphocyte Maturation Factor (CLMF), TSF

Summary: Interleukin 12 p70 (IL-12 p70) is an interleukin which is major secreted from immune cells like

dendritic cells, macrophages and neutrophils. IL-12 p70 is a 58.5 kDa protein containing 527 amino acid residues which is composed by two subunits (IL-12 p35 and IL-12 p40). IL-12 p70 induces the cytotoxic activity of immune cells like NK cells and T cells. IL-12 p70 binds its receptor (IL-12R $\beta$ 1 and IL-12R $\beta$ 2) that activates the Jak/STAT signaling pathway. IL-12 p70 also plays an important role in cancer model which inhibits the formation of new blood vessels

through the production of IFN  $\gamma$ .

### **Product images:**



SDS- PAGE analysis of recombinant human IL-12 p70