

## Human recombinant IL-12 (p70) (Interleukin-12 p70) protein, AF

Catalog Number: PROTP29459-2

### Overview

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| Product Name | Human recombinant IL-12 (p70) (Interleukin-12 p70) protein, AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Description  | 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-12Rbeta1 and IL-12Rbeta2) 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. |
| Size         | 5ug,20ug,100ug                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Tag          | His Tag (C-term)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form         | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Source       | HEK293 cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Formulation  | The protein was lyophilized from a 0.2 um filtered solution containing 1X PBS, pH 7.4. If you have any concerns or special requirements, please confirm with us.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°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.

### Purity

>98% as determined by SDS-PAGE.

### Molecular weight

The protein has a calculated MW of 59.55 kDa. The protein migrates as 63-75 kDa under reducing condition (SDS-PAGE analysis).

### Activity

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 ug of the protein by the LAL method.

### Amino Acid Sequence

IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLDQSSEVLGSGKTLTIQVKEFGDAGQYTCHKGGEVLSHSLLLHKKEDGIWSTDILKDQK  
EPKNKTFLRCEAKNYSGRFTCWWLTTISTDLTFSVKSSRGSSDPQGVTCGAATLSAERVGRDNKEYEYSVECQEDSACPAAEESLPIEVMVDAVHKLKYE  
NYTSSFFIRDIIKPDPPKNLQLKPLKNSRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNASISVRAQDRYYSSSWSE  
WASVPCSGSTSGSGKPGSGEGSTKGRNLPVATPDPGMFCLHHSQNLLRAVSNMLQKARQTLEFYPTCTSEEIDHEDITKDKTSTVEACLPLELTKNESCL  
NSRETSFITNGSCLASRKTSFMMALCLSSIYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNMMLAVIDELMQALNFNSETVPQKSLEEPDFYKTKIKLCIL  
LHAFRIRAVTIDRVMSYLNASHHHHHH with polyhistidine tag at the C-terminus.

### Reconstitution

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 100 ug/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.

## Usage

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