

## Active Recombinant Human IL12B Protein, His-tagged(C-ter)

Cat. No. IL12B-141H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Active Human IL12B Protein with His tag (C-ter) was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>This gene encodes a subunit of interleukin 12, a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. Interleukin 12 is a disulfide-linked heterodimer composed of the 40 kD cytokine receptor like subunit encoded by this gene, and a 35 kD subunit encoded by IL12A. This cytokine is expressed by activated macrophages that serve as an essential inducer of Th1 cells development. This cytokine has been found to be important for sustaining a sufficient number of memory/effector Th1 cells to mediate long-term protection to an intracellular pathogen. Overexpression of this gene was observed in the central nervous system of patients with multiple sclerosis (MS), suggesting a role of this cytokine in the pathogenesis of the disease. The promoter polymorphism of this gene has been reported to be associated with the severity of atopic and non-atopic asthma in children. [provided by RefSeq, Jul 2008]</p> |
| <b>Form</b>             | Powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBMC). The ED50 for this effect is < 88 pg/ml.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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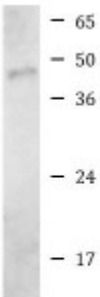
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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>      | MIWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLDQSSEVLGSGKTLTI<br>QVKEFGDAGQYTCHKGGEVLSHSLLLLHKKEDGIWSTDILKDQKEPKNKTFLRCEAK<br>NYSGRFTCWWLTTISTDLTFSVKSSRGSSDPQGVTCGAATLSAERVGRDNKEYEYS<br>VECQEDSACPAAEESLPIEVMVDAVHKLKYENYTSSFFIRDIKPDPPKNLQLKPLKN<br>SRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNA<br>SISVRAQDRYYSSSWSEWASVPCS |
| <b>Endotoxin</b>        | Endotoxin level is less than 0.1 EU/μg of the protein, as determined by the LAL test.                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | > 98% (by SDS-PAGE)                                                                                                                                                                                                                                                                                                                    |
| <b>Applications</b>     | SDS-PAGE                                                                                                                                                                                                                                                                                                                               |
| <b>Notes</b>            | For laboratory research only, not for drug, diagnostic or other use.                                                                                                                                                                                                                                                                   |
| <b>Storage</b>          | Lyophilized protein should be stored at -20°C. After reconstitution, aliquot and store at -20°C or -80°C for up to one month. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.                                                                            |
| <b>Storage Buffer</b>   | PBS (pH 8.0)                                                                                                                                                                                                                                                                                                                           |
| <b>Reconstitution</b>   | It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less than 100 μg/mL and incubate the stock solution for at least 20 min at room temperature to make sure the protein is dissolved completely.                                                                                        |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                        |
| <b>Gene Name</b>        | IL12B interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) [ Homo sapiens ]                                                                                                                                                                                                       |

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|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b> | <b>IL12B</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | IL12B; interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40); NKSF2; interleukin-12 subunit beta; CLMF; CLMF2; cytotoxic lymphocyte maturation factor 2; p40; IL 12B; IL12; subunit p40; interleukin 12; interleukin 12 beta chain; natural killer cell stimulatory factor; 40 kD subunit; natural killer cell stimulatory factor 2; NKSF; CLMF p40; IL-12 subunit p40; IL12, subunit p40; interleukin 12, p40; interleukin-12 beta chain; NK cell stimulatory factor chain 2; cytotoxic lymphocyte maturation factor 40 kDa subunit; natural killer cell stimulatory factor, 40 kD subunit; IL-12B; |
| <b>Gene ID</b>         | <b>3593</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>mRNA Refseq</b>     | <b>NM_002187</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protein Refseq</b>  | <b>NP_002178</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>MIM</b>             | <b>161561</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>UniProt ID</b>      | <b>P29460</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>SDS-PAGE</b>        |  <p>Human IL12B / IL12 p40 recombinant protein</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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