## Recombinant Human IL-12 p40 protein ab287933

### Description

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Recombinant Human IL-12 p40 protein</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purity</strong></td>
<td>&gt;= 95% SDS-PAGE.</td>
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<tr>
<td><strong>Endotoxin level</strong></td>
<td>&lt;=0.005 Eu/µg</td>
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<tr>
<td><strong>Expression system</strong></td>
<td>HEK 293 cells</td>
</tr>
<tr>
<td><strong>Accession</strong></td>
<td>P29460</td>
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<tr>
<td><strong>Protein length</strong></td>
<td>Full length protein</td>
</tr>
<tr>
<td><strong>Animal free</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Carrier free</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Nature</strong></td>
<td>Recombinant</td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td>Human</td>
</tr>
<tr>
<td><strong>Sequence</strong></td>
<td>IWELKKDVYVVELDWYPDAPGEMVVTTCCTPEEDGITWT LDQSSEVLGSG KTLTIQKEFMDAGQYTCRKGEVLSHSLHHLKKEGKW SDILKDQKE PKNKTFLRCEAKNYSRFTCWLTITSTDLFSVKSRSRS SDPQQGVTGCA ATLSAERVRGDNKEYESVEQESACPAAEESPIMVE VMVDAVHLKKYEN YTSSFFIRIDKPDPPKLQKPLKNSQVSEVSWEYPDTWS TPHS YFSLTVFCVQVQGKSREKKDRVFDTKTSATVCRKNASISVRAQD RYYSSWSEWASVPCO</td>
</tr>
<tr>
<td><strong>Predicted molecular weight</strong></td>
<td>35 kDa</td>
</tr>
<tr>
<td><strong>Molecular weight information</strong></td>
<td>Predicted MW 34754.01 (+/- 10 Da)</td>
</tr>
<tr>
<td><strong>Amino acids</strong></td>
<td>23 to 328</td>
</tr>
<tr>
<td><strong>Additional sequence information</strong></td>
<td>N-terminal glycine. Mature chain without signal peptide.</td>
</tr>
</tbody>
</table>

### Specifications

Our Abpromise guarantee covers the use of ab287933 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Applications | SDS-PAGE
---|---
Form | Lyophilized

### Preparation and Storage

#### Stability and Storage
Shipped at Room Temperature. Store at Room Temperature.
PpH: 7.4
Constituents: 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate, 10.26% Trehalose

#### Reconstitution
Reconstitute with phosphate buffered saline. Store lyophilized form at room temperature.
Reconstitute, aliquot and store at -80°C for 12 months or +4°C for 1 week. Avoid repeated freeze-thaw. Lyophilized contents may appear as either a translucent film or a white power. This variance does not affect the quality of the product.

### General Info

#### Function
Cytokine that can act as a growth factor for activated T and NK cells, enhance the lytic activity of NK/lymphokine-activated killer cells, and stimulate the production of IFN-gamma by resting PBMC.
Associates with IL23A to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to an heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.

#### Involvement in disease
Defects in IL12B are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity, whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance. Genetic variations in IL12B are a cause of susceptibility to psoriasis type 11 (PSORS11) [MIM:612599]. Psoriasis is a common, chronic inflammatory disease of the skin with multifactorial etiology. It is characterized by red, scaly plaques usually found on the scalp, elbows and knees. These lesions are caused by abnormal keratinocyte proliferation and infiltration of inflammatory cells into the dermis and epidermis.

#### Sequence similarities
Belongs to the type I cytokine receptor family. Type 3 subfamily.
Contains 1 fibronectin type-III domain.
Contains 1 Ig-like C2-type (immunoglobulin-like) domain.

#### Post-translational modifications
Known to be C-mannosylated in the recombinant protein; it is not yet known for sure if the wild-type protein is also modified.
**Cellular localization**

Secreted.

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**Images**

SDS-PAGE analysis of ab287933

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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