

Datasheet for ABIN7505769
IL12 Protein (AA 23-335) (His tag)



[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	IL12
Protein Characteristics:	AA 23-335
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL12 protein is labelled with His tag.

Product Details

Sequence:	Met23-Ser335
Characteristics:	Recombinant Rat Interleukin-12 is produced by our Mammalian expression system and the target gene encoding Met23-Ser335(p40)&Arg23-Ser215(p35) is expressed with a 6His tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	<1.0 EU per µg of the protein as determined by the LAL method.

Target Details

Target:	IL12
Alternative Name:	Interleukin-12 (IL12 Products)
Background:	Abbreviation: Interleukin-12,IL-12 Target Synonym: Interleukin-12,IL-12

Target Details

Background: Interleukin 12 (IL-12) is the founding member of the IL-12 family of heterodimeric cytokines, which have important immunological functions. IL-12 is composed of two disulfide-linked subunits of 35 kDa and 40 kDa, respectively. The 35 kDa subunit (p35) is an α -helical protein homologous to IL-6 and GCSF. The 40 kDa subunit (p40) contains one fibronectin type III and one Ig C2-like domain, and has a high degree of structural homology to type I cytokine receptors. Whereas p35 subunit is unique to IL-12, the p40 subunit is also utilized in IL-23. Mature rat p35 is a 194 amino acids (aa) protein that is secreted as a heterodimer linked to p40. It contains three potential N-linked glycosylation sites and shares 86 % , and 58 % aa sequence identity with mouse and human p35, respectively. Mature rat p40 contains 313 aa and can exist in multiple forms, including monomer, homodimer, heterodimer linked to p19 (forming IL23), and heterodimer linked to p35 (forming IL-12). IL12 facilitates hematopoietic stem cell proliferation, induces NK cell proliferation, and potentiates the expansion and late activation of Th1 CD4+ T cells.

Molecular Weight: Calculated MW: 36.7&22.6 kDa
Observed MW: 25-35&40-50 kDa

UniProt: [Q9R278](#), [Q9R103](#)

Pathways: [JAK-STAT Signaling](#), [TLR Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#),
[Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#),
[Activated T Cell Proliferation](#), [Cancer Immune Checkpoints](#), [Inflammasome](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: Lyophilized from a 0.2 um filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.
Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Handling

Expiry Date: 12 months