

Product datasheet

Recombinant human IL-12 p70 protein (Active) ab259418

[4 Images](#)

Description

Product name	Recombinant human IL-12 p70 protein (Active)	
Biological activity	Fully biologically active compared to a standard. ED ₅₀ as determined by the dose-dependant proliferation of NK-92 cells is 0.86 ng/mL corresponding to a Specific Activity of 1.16 x 10 ⁶ IU/mg.	
Purity	>= 95 % SDS-PAGE. Purity by HPLC >=95%.	
Endotoxin level	< 0.005 Eu/μg	
Expression system	HEK 293 cells	
Accession	<u>P29460</u> <u>P29459</u>	
Protein length	Full length protein	
Animal free	Yes	
Carrier free	Yes	
Nature	Recombinant	
Amino Acid Sequence 1		
Species	Human	
Sequence	WELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWT LDQSSEVLGSG KTLTIQVKEFGDAGQYTCHKGGEVLSHSLLLLHKKEDGMW STDILKDQKE PKNKTFLRCEAKNYSGRFTCWWLTTISTDLTFSVKSSRGS SDPQGVTCGA ATLSAERVRGDNKEYEYSVECQEDSACPAAEESLPIEVM VDAVHKLKYEN YTSSFFIRDIIKPDPPKNLQLKPLKNSRQVEVSWEYPDTWS TPHSYFSLT FCVQVQGKSKREKKDRVFTDKTSATVICRKNASISVRAQD RYSSSWSEW ASVPCS	
Predicted molecular weight	35 kDa	
Molecular weight information	M + 2.97 Da (Calc mass 34754.03 Da)	

Amino acids	23 to 328
Additional sequence information	Full-length mature IL-12 p40 subunit lacking the signal peptide. ab259418 is a heterodimeric glycoprotein consisting of disulfide-linked p40 and p35 subunits (503 total amino acid residues).
Amino Acid Sequence 2	
Species	Human
Sequence	RNLPVATPDPMFPCPLHHSQNLLRAVSNMLQKARQTLEF YPCTSEEIDHE DITKDKTSTVEACLPLELTKNESCLNSRETSFITNGSCLAS RKTSFMMAL CLSSYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNMLAVI DELMQALNF NSETVPQKSSLEEPDFYKTIKLCILLHAFRIRAVTIDRVMS YLNAS
Predicted molecular weight	23 kDa
Molecular weight information	M + 2.8 Da (Calc. mass 22599.2 Da).
Amino acids	23 to 219
Additional sequence information	Full-length mature IL-12 p35 subunit lacking the signal peptide. ab259418 is a heterodimeric glycoprotein consisting of disulfide-linked p40 and p35 subunits (503 total amino acid residues).

Specifications

Our **Abpromise guarantee** covers the use of **ab259418** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Cell Culture SDS-PAGE HPLC Functional Studies Mass Spectrometry
Form	Lyophilized
Additional notes	This protein is filter sterilised prior to aliquoting and lyophilisation. All aliquoting and lyophilisation steps are performed in a sterile environment. IL-12 p70 is a disulfide bonded heterodimer of the IL-12 40 kDa and 35 kDa subunits.

Preparation and Storage

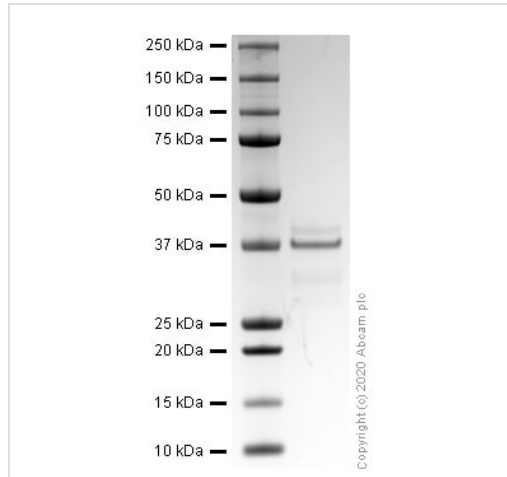
Stability and Storage	Shipped at Room Temperature. Store at Room Temperature. pH: 6.00 Constituents: 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate, 10.26% Trehalose Buffer lyophilized from. This product is an active protein and may elicit a biological response in vivo, handle with caution.
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 powder. This variance does not affect the quality of the product.

General Info

Relevance IL-12 p70 is a disulfide bonded heterodimer of the IL-12 40 kDa and 35 kDa subunits.
Cellular localization Secreted

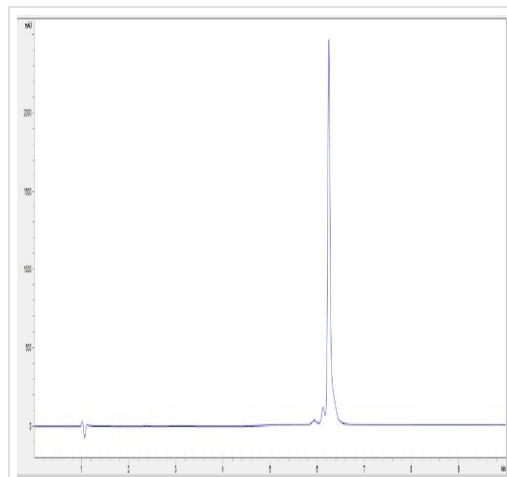
Images



SDS-PAGE - Recombinant human IL-12 p70 protein
(Active) (ab259418)

SDS-PAGE analysis of ab259418.

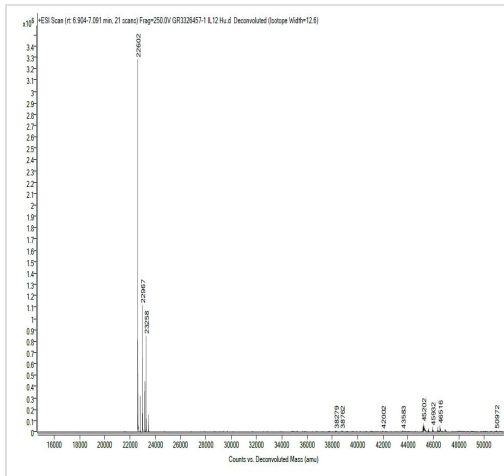
Protein is a heterodimer.



HPLC - Recombinant Human IL-12 protein
(ab259418)

Purity 96%.

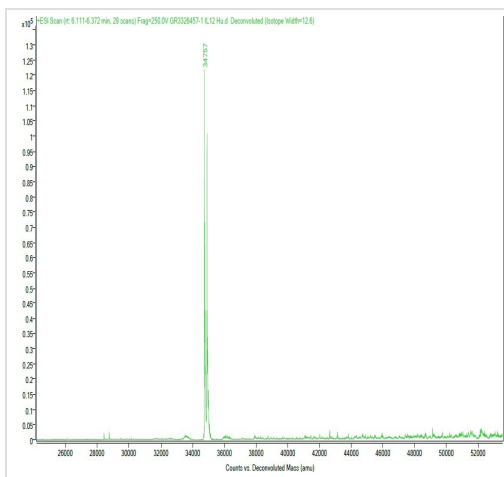
The spectrum was recorded using a 1260 Infinity II HPLC system with DAD and a MabPac RP column (3.0x100 mm, 4 μ m). 5 μ L of purified protein was injected and the gradient run from 80 % water:TFA (99.9:0.1 v/v) and 20 % acetonitrile:water:TFA (90:9.9:0.1 v/v/v) to 20 % water:TFA (99.9:0.1 v/v) and 80 % acetonitrile:water:TFA (90:9.9:0.1 v/v/v) within 3 minutes followed by an isocratic step for another 3 min. Flow rate was 0.5 mL/min and the column compartment temperature was 50 $^{\circ}$ C.



Mass Spectrometry - Recombinant Human IL-12 protein (ab259418)

M + 2.8 Da (Calc. mass 22599.2 Da).

The spectrum was recorded with a 6545XT AdvanceBio LC/Q-TOF (Agilent Technologies) and a MabPac RP column (42.1x50 mm, 4 μ m, Thermo Scientific). 5 μ L of purified protein was injected and the gradient run from 85 % water:FA (99.9:0.1 v/v) and 15 % acetonitrile:FA (90:9.9:0.1 v/v/v) to 55 % water:FA (99.9:0.1 v/v) and 45 % acetonitrile:FA (90:9.9:0.1 v/v/v) within 3 minutes followed by an isocratic step for another 2.5 min. Flow rate was 0.4 mL/min and the column compartment temperature was 60 $^{\circ}$ C. Data was analysed and deconvoluted using the Bioconfirm software (Agilent Technologies).



Mass Spectrometry - Recombinant Human IL-12 protein (ab259418)

M + 2.97 Da (Calc mass 34754.03 Da).

The spectrum was recorded with a 6545XT AdvanceBio LC/Q-TOF (Agilent Technologies) and a MabPac RP column (42.1x50 mm, 4 μ m, Thermo Scientific). 5 μ L of purified protein was injected and the gradient run from 85 % water:FA (99.9:0.1 v/v) and 15 % acetonitrile:FA (90:9.9:0.1 v/v/v) to 55 % water:FA (99.9:0.1 v/v) and 45 % acetonitrile:FA (90:9.9:0.1 v/v/v) within 3 minutes followed by an isocratic step for another 2.5 min. Flow rate was 0.4 mL/min and the column compartment temperature was 60 $^{\circ}$ C. Data was analysed and deconvoluted using the Bioconfirm software (Agilent Technologies).

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

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