

Product datasheet

Recombinant Human IL-33 protein (Active) ab281811

[4 Images](#)

Description

Product name	Recombinant Human IL-33 protein (Active)	
Biological activity	Fully biologically active determined by the dose dependent proliferation of D10S cells. ED ₅₀ is ≤ 1.70 ng/ml, corresponding to a specific activity of 5.9 x 10 ⁵ units/mg.	
Purity	> 95 % SDS-PAGE. Purity ≥95% by HPLC.	
Endotoxin level	≤0.005 Eu/μg	
Expression system	HEK 293 cells	
Accession	<u>O95760</u>	
Protein length	Full length protein	
Animal free	Yes	
Carrier free	Yes	
Nature	Recombinant	
Species	Human	
Sequence	AFGISGVQKY TRALHDSSIT GISPITEYLA SLSTYNDQSI TFALEDESYE MYEDLKKDE KKDKVLLSY ESQHPSNESG DGVGKMLMV TLSPTKDFWL HANNKEHSVE LHKCEKPLPD QAFFVLHNMH SNCVSFECKT DPGVFIGVKD NHLALIKVDS SENLCTENIL FKLSET	
Predicted molecular weight	20 kDa	
Actual molecular weight	20 kDa	
Molecular weight information	Predicted MW is 19883.29 Da (+/- 10 Da by ESI-TOF). Observed MW is 19884.54 Da.	
Amino acids	95 to 270	
Additional sequence information	N-terminal glycine. Full-length mature chain lacking the signal peptide and pro-peptide.	

Specifications

Our **Abpromise guarantee** covers the use of **ab281811** in the following tested applications.

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

Applications Functional Studies

HPLC
SDS-PAGE
Mass Spectrometry
Cell Culture
Biological Activity

Form Lyophilized

Preparation and Storage

Stability and Storage Shipped at Room Temperature. Store at Room Temperature.
pH: 7.40
Constituents: 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate, 10.26% Trehalose
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 power. This variance does not affect the quality of the product

General Info

Function Cytokine that binds to and signals through the IL1RL1/ST2 receptor which in turn activates NF-kappa-B and MAPK signaling pathways in target cells (PubMed:16286016). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2-associated cytokines. Also involved in activation of mast cells, basophils, eosinophils and natural killer cells. Acts as a chemoattractant for Th2 cells, and may function as an "alarmin", that amplifies immune responses during tissue injury (PubMed:17853410, PubMed:18836528).
In quiescent endothelia the uncleaved form is constitutively and abundantly expressed, and acts as a chromatin-associated nuclear factor with transcriptional repressor properties, it may sequester nuclear NF-kappaB/RELA, lowering expression of its targets (PubMed:21734074). This form is rapidly lost upon angiogenic or proinflammatory activation (PubMed:18787100).

Tissue specificity Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta.

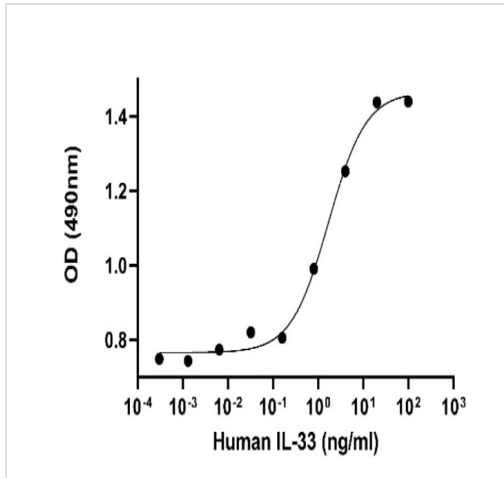
Sequence similarities Belongs to the IL-1 family. Highly divergent.

Domain The homeodomain-like HTH domain mediates nuclear localization and heterochromatin association.

Post-translational modifications The full length protein can be released from cells and is able to signal via the IL1RL1/ST2 receptor. However, proteolytic processing by CSTG/cathepsin G and ELANE/neutrophil elastase produces C-terminal peptides that are more active than the unprocessed full length protein. May also be proteolytically processed by calpains (PubMed:19596270). Proteolytic cleavage mediated by apoptotic caspases including CASP3 and CASP7 results in IL33 inactivation (PubMed:19559631). In vitro proteolytic cleavage by CASP1 was reported (PubMed:16286016) but could not be confirmed in vivo (PubMed:19465481) suggesting that IL33 is probably not a direct substrate for that caspase.

Cellular localization Nucleus. Chromosome. Cytoplasmic vesicle, secretory vesicle. Secreted. Associates with

Images

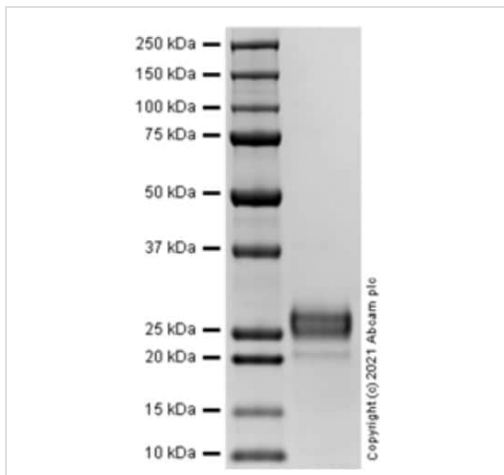


Biological Activity - Recombinant Human IL-33 protein (ab281811)

Recombinant Human IL-33 protein was determined to be fully biologically active by the dose dependent proliferation of D10S cells. ED₅₀ is ≤ 1.70 ng/ml, corresponding to a specific activity of 5.9×10^4 units/mg.

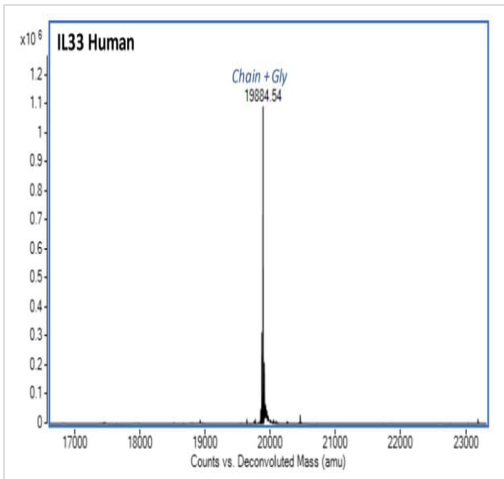
Cell based assay testing is performed on the first lot of the protein only and is provided as a reference for protein activity; subsequent lots of protein must pass all biophysical quality control parameters that meet the same parameters as the first lot.

Lot GR3425563-1.



SDS-PAGE - Recombinant Human IL-33 protein (ab281811)

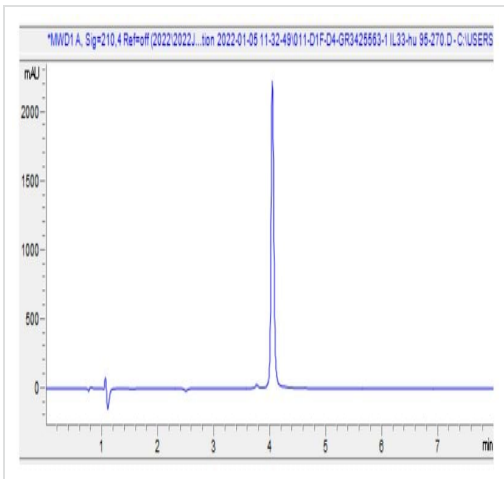
SDS-PAGE analysis of ab281811.



Mass Spectrometry - Recombinant Human IL-33 protein (ab281811)

ESI-TOF analysis of ab281811.

Predicted MW is 19883.29 Da (+/- 10 Da by ESI-TOF). Observed MW is 19884.54 Da.



HPLC - Recombinant Human IL-33 protein (ab281811)

HPLC analysis of ab281811.

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

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