

## Product datasheet

# Recombinant mouse IL-33 protein (Active) ab270066

[4 Images](#)

### Description

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<b>Product name</b>	Recombinant mouse IL-33 protein (Active)
<b>Biological activity</b>	Fully biologically active when compared to standard. Determined by the dose dependant proliferation of D10.G4.1 cells.  ED <sub>50</sub> is ≤ 0.8747, corresponding to a specific activity of 1.14 x 10 <sup>6</sup> units/mg.
<b>Purity</b>	> 95 % SDS-PAGE. Purity =95% by HPLC.
<b>Endotoxin level</b>	≤0.005 Eu/μg
<b>Expression system</b>	HEK 293 cells
<b>Accession</b>	<b><u>Q8BVZ5</u></b>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	Yes
<b>Carrier free</b>	Yes
<b>Nature</b>	Recombinant
<b>Species</b>	Mouse
<b>Sequence</b>	SIQGTSLLTQ SPASLSTYND QSVSFVLENG CYVINVDDSG KDQEQQVLL RYESPCPAS QSGDGVGK LMVNMSPK TDWLHANDK DYSVELQRGD VSPPEQAFFV LHKSSDFVS FECKNLPGTY IGVKDNQLAL VEEKDESCNN IMFKLSKI
<b>Predicted molecular weight</b>	18 kDa
<b>Molecular weight information</b>	M+1.3 Da. Calc MW is17624.69 Da.
<b>Amino acids</b>	109 to 266
<b>Additional sequence information</b>	Full length mature chain with N-terminal Glycine. Without propeptide.

### Specifications

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Our **Abpromise guarantee** covers the use of **ab270066** in the following tested applications.

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

<b>Applications</b>	Functional Studies SDS-PAGE
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HPLC  
Mass Spectrometry  
Cell Culture

**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.

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## Preparation and Storage

**Stability and Storage** Shipped at Room Temperature. Store at Room Temperature.  
Information available upon request.  
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.

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## 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.

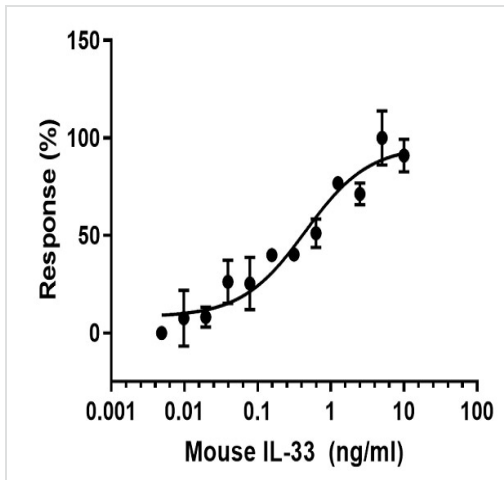
**Sequence similarities** Belongs to the IL-1 family. Highly divergent.

**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 heterochromatin and mitotic chromosomes (PubMed:17185418).

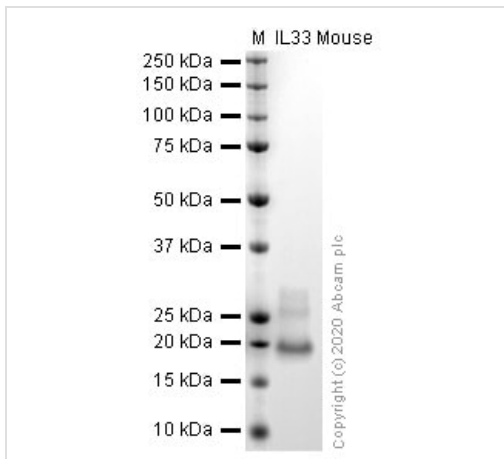
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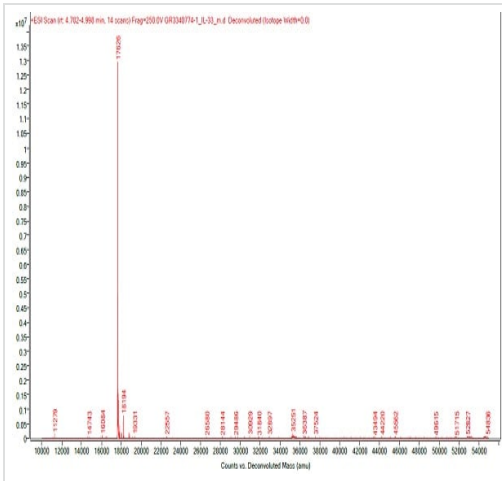
Functional Studies - Recombinant mouse IL-33 protein (Active) (ab270066)



**SDS-PAGE - Recombinant mouse IL-33 protein (Active) (ab270066).**

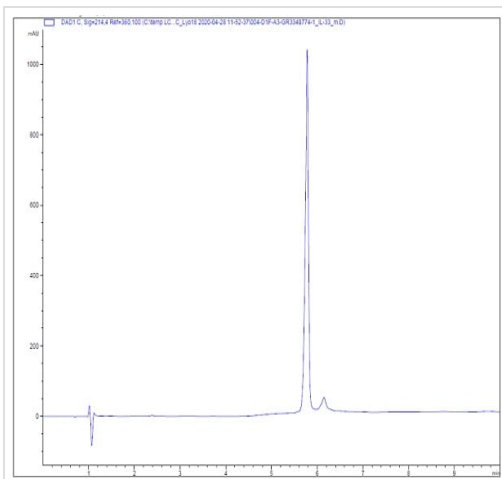
Purity ≥95%.

SDS-PAGE - Recombinant mouse IL-33 protein (Active) (ab270066)



M+1.3 Da. Calc MW is 17624.69 Da.

Mass Spectrometry - Recombinant mouse IL-33 protein (Active) (ab270066)



Purity  $\geq$ 95%.

HPLC - Recombinant mouse IL-33 protein (Active) (ab270066)

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

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