


Product datasheet

Anti-IL-33 antibody ab118503

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Overview

<b>Product name</b>	Anti-IL-33 antibody
<b>Description</b>	Rabbit polyclonal to IL-33
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Competitive ELISA, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide corresponding to Human IL-33 (internal sequence) conjugated to keyhole limpet haemocyanin.
<b>Positive control</b>	Human lymph node lysate and uterus tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.02% Sodium azide Constituent: 99% PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

## The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab118503 in the following tested applications.

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

Application	Abreviews	Notes
Competitive ELISA		Use at an assay dependent concentration.
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 31 kDa.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

### 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.

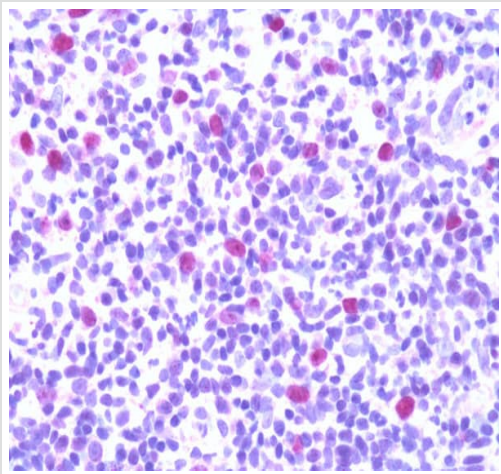
### Post-translational modifications

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

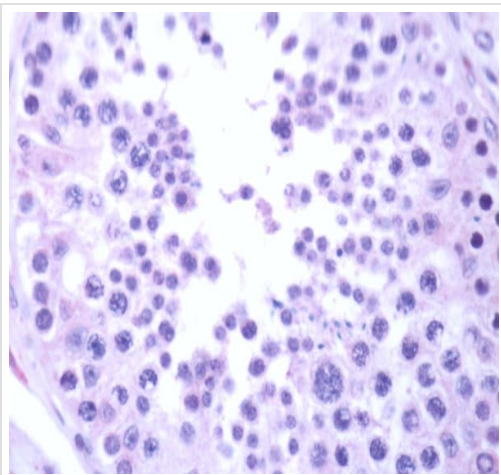
Nucleus. Chromosome. Cytoplasmic vesicle, secretory vesicle. Secreted. Associates with heterochromatin and mitotic chromosomes (PubMed:17185418).

## Images



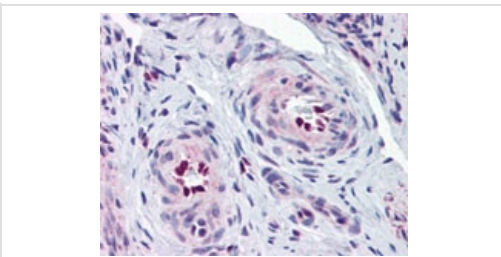
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-33 antibody (ab118503)

Immunohistochemical staining of paraffin-embedded, formalin fixed, human tonsil lymphocytes with ab118503 at 5  $\mu\text{g}/\text{mL}$ .



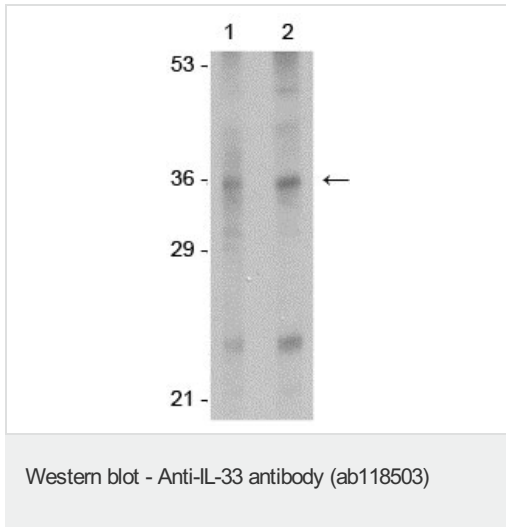
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-33 antibody (ab118503)

Negative control - immunohistochemical staining of paraffin-embedded, formalin fixed, human seminiferous tubules with ab118503 at 5  $\mu\text{g}/\text{mL}$ .



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-33 antibody (ab118503)

Human Uterus, Vessels (formalin-fixed, paraffin-embedded) stained with IL33 antibody ab118503 at 5  $\mu\text{g}/\text{ml}$  followed by biotinylated goat anti-rabbit IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.



**Lane 1** : Anti-IL-33 antibody (ab118503) at 1 µg/ml

**Lane 2** : Anti-IL-33 antibody (ab118503) at 2 µg/ml

**All lanes** : Human lymph node tissue lysate

**Predicted band size:** 31 kDa

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

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