Anti-IL-33 antibody ab118503

Overview

Product name: Anti-IL-33 antibody
Description: Rabbit polyclonal to IL-33
Host species: Rabbit
Tested applications: Suitable for: ELISA, WB, IHC-P
Species reactivity: Reacts with: Human
Predicted to work with: Mouse, Rat
Immunogen: Synthetic peptide corresponding to Human IL-33 (internal sequence) conjugated to keyhole limpet haemocyanin.
Positive control: Human lymph node lysate and uterus tissue.

Properties

Form: Liquid
Storage buffer: Preservative: 0.02% Sodium azide
Constituent: 99% PBS
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ELISA</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 31 kDa.</td>
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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 caspasases 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

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.
Immunohistochemical staining of paraffin-embedded, formalin fixed, human tonsil lymphocytes with ab118503 at 5 µg/mL.

Negative control - immunohistochemical staining of paraffin-embedded, formalin fixed, human seminiferous tubules with ab118503 at 5 µg/mL.

Human Uterus, Vessels (formalin-fixed, paraffin-embedded) stained with IL33 antibody ab118503 at 5 µg/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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