abcam

Product datasheet

Anti-IL-33 antibody [EPR20417] - BSA and Azide free ab236036



Overview

Product name Anti-IL-33 antibody [EPR20417] - BSA and Azide free

Description Rabbit monoclonal [EPR20417] to IL-33 - BSA and Azide free

Host species Rabbit

Tested applications Suitable for: IHC-P, WB

Unsuitable for: ICC/IF

Species reactivity Reacts with: Rat, Human

Immunogen Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control IHC-P: Rat spleen tissue.

General notes ab236036 is the carrier-free version of <u>ab207737</u>.

Our <u>carrier-free</u> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation officiency.

increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our <u>conjugation kits</u> for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**[®] **patents**.

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Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.2

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal
Clone number EPR20417

Isotype IgG

Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab236036 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
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Under our testing conditions we observed non-specific staining in some human tissues, customers are recommended to optimize IHC testing conditions.
WB		Use at an assay dependent concentration. Predicted molecular weight: 30 kDa.

Application notes Is unsuitable for ICC/IF.

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 rapidely 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.

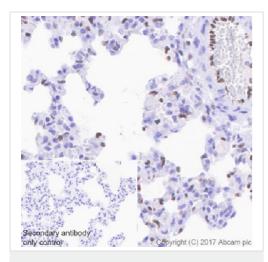
Post-translational modifications

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 paraffinembedded sections) - Anti-IL-33 antibody

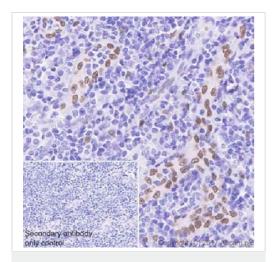
[EPR20417] - BSA and Azide free (ab236036)

Immunohistochemical analysis of paraffin embedded rat lung tissue labeling IL33 with <u>ab207737</u> at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on epithelium and endothelium cells of rat lung (PMID: 18836528) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) ready to use.

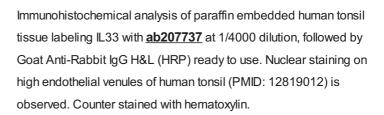
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207737).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IL-33 antibody

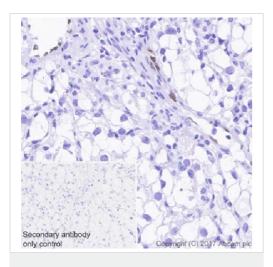
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Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IL-33 antibody

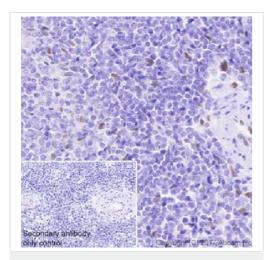
[EPR20417] - BSA and Azide free (ab236036)

Immunohistochemical analysis of paraffin embedded human kidney cancer tissue labeling IL33 with <u>ab207737</u> at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on endothelial cells of human kidney cancer (PMID: 12819012) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207737).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IL-33 antibody [EPR20417] - BSA and Azide free (ab236036)

Immunohistochemical analysis of paraffin embedded rat spleen tissue labeling IL33 with ab207737 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on endothelium cells of rat spleen (PMID: 12819012, PMID: 18836528) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207737).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.





Consistent and reproducible results





specificity



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

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