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Datasheet for 600-401-BW9

# IL-33 Antibody

## Overview

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| **Description:** | Anti-IL-33 (RABBIT) Antibody - 600-401-BW9 |
| **Item No.:** | 600-401-BW9 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IF, IHC, WB |
| **Reactivity:** | Human, Mouse |
| **Host Species:** | Rabbit |

## Product Details

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| **Background:** | Interleukin-33 (IL-33) is a recently identified member of the IL-1 family of cytokines whose other members include IL-1ab, IL-1Ra and IL-18. Its receptor has been shown to be ST2, an IL-1 receptor family member that also acts as a negative regulator of TLR-IL-1R signaling and IL-1R accessory protein (IL-1RAcP). Receptor binding of IL-33 activates NF-kB and MAP kinases and induces the expression of TH2-associated cytokines such as IL-4, IL-5 and IL-6. Prolonged IL-33 treatment of mice led to the development of eosinophilia, splenomegaly, and severe pathological changes in mucosal organs such as lungs, esophagus and small intestine. Recent experiments have shown that IL-33 can also co-localize with heterochromatin and possesses transcriptional repressor activities, indicating that IL-33 may function as both a proinflammatory cytokine and an intracellular nuclear factor with transcriptional regulatory properties. |
| **Synonyms:** | IL-33 Antibody, DVS27, IL1F11, NF-HEV, NFEHEV, C9orf26, NFHEV, Interleukin-33, Interleukin-1 family member 11, IL-33 |
| **Host Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Gene Name:** | IL33 |
| **Reactivity:** | Human, Mouse |
| **Immunogen Type:** | Conjugated Peptide |

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| **Immunogen:** | Anti-IL-33 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 19 amino acid synthetic peptide from near the internal region of human IL-33. The immunogen is located within the 150-200 amino acids of IL-33. |
| **Purity/Specificity:** | Anti-IL-33 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with IL-33 from other sources has not been determined. Predicted species reactivity based on immunogen sequence: Rat: (76.5%). |
| **Relevant Links:** | • UniProtKB - O95760<br>• GeneID - 90865<br>• NCBI - NP_254274 |

## Application Details

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| **Tested Applications:** | ELISA, IF, IHC, WB |
| **Application Note:** | Anti-IL-33 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 31 kDa in Western Blots of specific cell lysates and tissues. Despite its predicted molecular weight, IL-33 will often run at higher molecular weight in SDS-PAGE and can be seen ~33kDa. Positive controls used are A20 cells and human lymphoid tissues. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:10,000-1:20,000 |
| **IF:** | 20 µg/mL |
| **IHC:** | 2.5µg/mL |
| **WB:** | 1-2 µg/mL |

## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1.0 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.02% (w/v) Sodium Azide |
| **Stabilizer:** | None |

## Shipping & Handling

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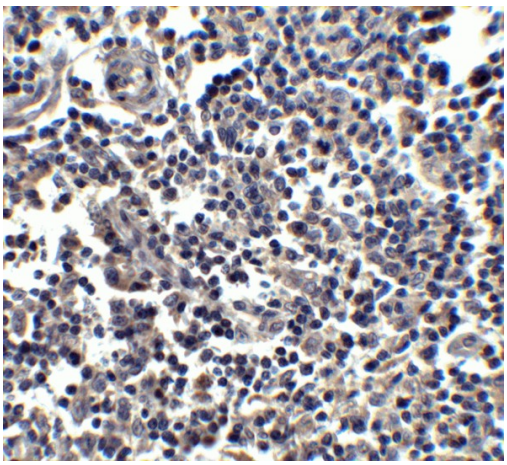
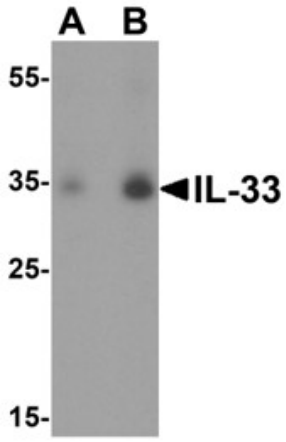
| **Shipping Condition:** | Dry Ice |
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

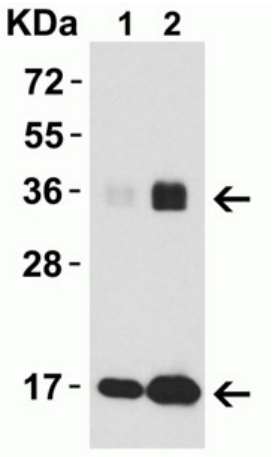
## Images



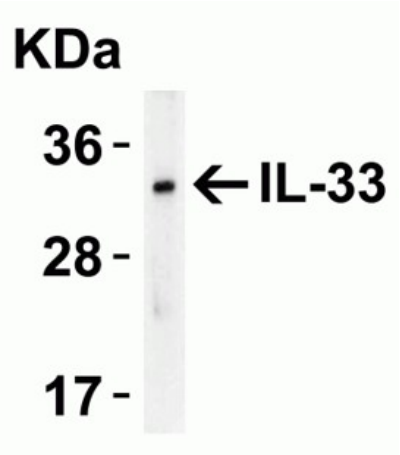
**Immunohistochemistry**
Immunohistochemistry Validation of IL-33. Immunohistochemical analysis of paraffin-embedded human lymph node tissue using anti-IL-33 antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



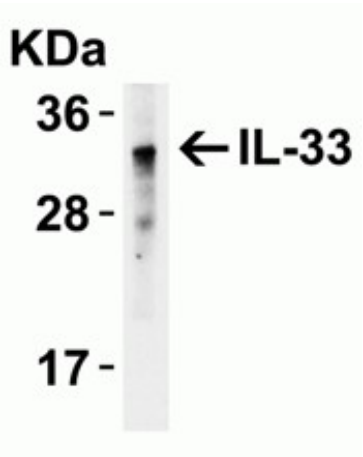

**Western Blot**
Western Blot Validation of IL-33. Loading: 15 µg of A20 cell lysates per lane. Lane A: 1 µg/mL, Lane B: 2 µg/mL. Antibodies: IL-33, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



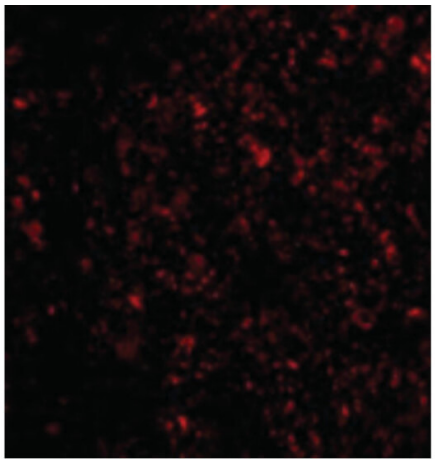

**Western Blot**
Western Blot Validation of IL-33. Loading: 5ng (1) and 25ng (2) of IL-33 partial human recombinant protein. Antibodies: IL-33, 1 µg/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Il-33 partial human recombinant protein: 112-270aa, 17.9kD, 36kD band is the dimer.



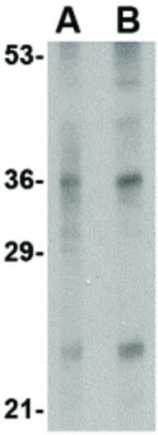

**Western Blot**
Western Blot Validation of IL-33. Loading: 15 µg of human lymph node lysate. Antibodies: IL-33, 2 µg/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.




**Western Blot**
Western Blot Validation of IL-33. Loading: 15 µg of human lung lysate. Antibodies: IL-33, 2 µg/mL, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



**Immunofluorescence Microscopy**
Immunofluorescence Microscopy of IL-33 antibody. Tissue: Human lymph node cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: IL-33 at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: IL-33 as a red fluorescent signal.




**Western Blot**
Western Blot of IL-33 antibody. Lane A: Human lymph node tissue lysate at 1 µg/mL. Lane B: Human lymph node tissue lysate at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 30.7 kDa, 36 kDa for IL-33. Other band(s): IL-33 splice variants and isoforms.

## Disclaimer

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