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IL-33 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10835

Specification

IL-33 Antibody - Product Information

Application	**E**
Primary Accession	O95760
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**30759**

IL-33 Antibody - Additional Information

Gene ID 90865

Positive Control	**ELISA: Recombinant hIL-33** **IHC: Human breast malignant ductal adenocarcinoma**
Application & Usage	**1) WB: Use 0.1-0.2 µg/ml. The detection limit for recombinant human IL-33 is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.** **2) ELISA: Use 0.5 - 2.0 µg/ml (100 µl/well antibody solution)** **3) Neutralization: To yield one-half maximal inhibition [ND50] of the biological activity of Human IL-33 (1.0 ng/ml), a concentration of 0.2-0.4 µg/ml of this antibody is required.** **4) Immunohistochemistry: 0.125 µg/ml-0.25 µg/ml with an overnight incubation at 4°C**

Other Names
NF-HEV

Target/Specificity
IL-33

Antibody Form
Liquid

Appearance
Liquid

Formulation
A sterile filtered antibody solution in PBS, pH 7.2.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
IL-33 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IL-33 Antibody - Protein Information

Name IL33 (HGNC:16028)

Synonyms C9orf26, IL1F11, NFHEV

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, PubMed:19841166). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2- associated cytokines (PubMed:17853410, PubMed:18836528). Also involved in activation of mast cells, basophils, eosinophils and natural killer cells (PubMed:17853410, PubMed:18836528). Acts as an enhancer of polarization of alternatively activated macrophages (PubMed:19841166). Acts as a chemoattractant for Th2 cells, and may function as an 'alarmin', that amplifies immune responses during tissue injury (PubMed:17853410, PubMed:18836528). Induces rapid UCP2-dependent mitochondrial rewiring that attenuates the generation of reactive oxygen species and preserves the integrity of Krebs cycle required for persistent production of itaconate and subsequent GATA3-dependent differentiation of inflammation-resolving alternatively activated macrophages (By similarity).

Cellular Location
Nucleus. Chromosome. Cytoplasm Cytoplasmic vesicle, secretory vesicle Secreted Note=Secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore following cleavage by CELA1 (PubMed:35794369). Associates with heterochromatin and mitotic chromosomes (PubMed:17185418). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059).

Tissue Location
Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta.

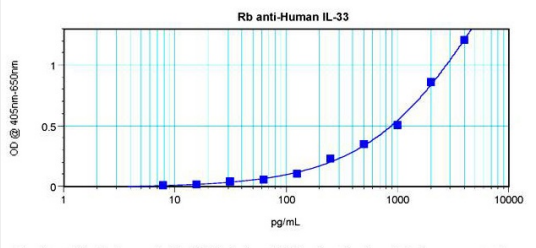
IL-33 Antibody - Protocols

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Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IL-33 Antibody - Images



To detect hIL-33 by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antibody allows the detection of at least 0.2 - 0.4 ng/well of recombinant hIL-33.

IL-33 Antibody - Background

Human IL-33 is a proinflammatory protein that shares structural and functional characteristics with the IL-1 cytokine family. It binds and signals through the IL-1RL1/ST2 receptor activating NF-kappaB and MAP kinases. IL-33 induces production of TH2 cell related cytokines, including IL-4, IL-5 and IL-13, and exerts multiple inflammation related bioactivities.