

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

Application & Usage

ELISA: Recombinant hIL-33
IHC: Human breast malignant ductal adenocarcinoma
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

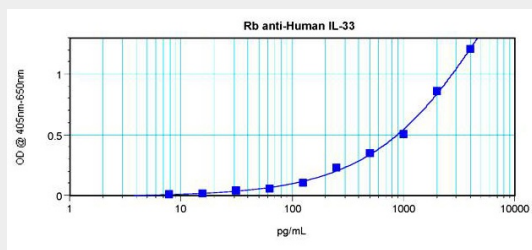
Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta.

IL-33 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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.