

### **IL33 Antibody (Internal)**

Rabbit Polyclonal Antibody Catalog # ALS12413

### **Specification**

### **IL33 Antibody (Internal) - Product Information**

Application IF, IHC
Primary Accession
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 31kDa KDa

### IL33 Antibody (Internal) - Additional Information

## **Gene ID** 90865

#### **Other Names**

Interleukin-33, IL-33, Interleukin-1 family member 11, IL-1F11, Nuclear factor from high endothelial venules, NF-HEV, Interleukin-33 (95-270), Interleukin-33 (99-270), Interleukin-33 (109-270), IL33, C9orf26, IL1F11, NFHEV

## **Target/Specificity**

a 19 amino acid peptide from near the center of human IL-33

### **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

#### **Precautions**

IL33 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

# IL33 Antibody (Internal) - 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:<a href="http://www.uniprot.org/citations/16286016" target="\_blank">16286016</a>, PubMed:<a href="http://www.uniprot.org/citations/19841166" target="\_blank">19841166</a>). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2- associated cytokines (PubMed:<a href="http://www.uniprot.org/citations/17853410" target="\_blank">17853410</a>, PubMed:<a href="http://www.uniprot.org/citations/18836528" target="\_blank">18836528</a>). Also involved in activation of mast cells, basophils, eosinophils and natural killer cells (PubMed:<a href="http://www.uniprot.org/citations/17853410" target="\_blank">17853410</a>, PubMed:<a



href="http://www.uniprot.org/citations/18836528" target="\_blank">18836528</a>). Acts as an enhancer of polarization of alternatively activated macrophages (PubMed:<a href="http://www.uniprot.org/citations/19841166" target="\_blank">19841166</a>). Acts as a chemoattractant for Th2 cells, and may function as an 'alarmin', that amplifies immune responses during tissue injury (PubMed:<a href="http://www.uniprot.org/citations/17853410" target="\_blank">17853410</a>/a>, PubMed:<a href="http://www.uniprot.org/citations/18836528" target="\_blank">18836528</a>). 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**

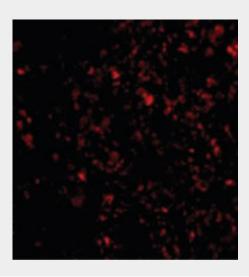
Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta.

### **IL33 Antibody (Internal) - Protocols**

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

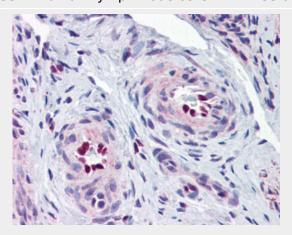
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### IL33 Antibody (Internal) - Images





Immunofluorescence of IL-33 in Human Lymph Node cells with IL-33 antibody at 20 ug/ml.



Anti-IL-33 antibody IHC of human uterus, vessels.

## IL33 Antibody (Internal) - Background

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).

## IL33 Antibody (Internal) - References

Baekkevold E.S.,et al.Am. J. Pathol. 163:69-79(2003). Onda H.,et al.J. Cereb. Blood Flow Metab. 19:1279-1288(1999). Schmitz J.,et al.Immunity 23:479-490(2005). Hong J.,et al.J. Biol. Chem. 286:20078-20086(2011). Ota T.,et al.Nat. Genet. 36:40-45(2004).