

IL33 Recombinant Rabbit mAb

Catalog # AP99157

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q8BVZ5
Other Accession	Q8BVZ5
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	29991
Physical State	Liquid
Immunogen	A synthesized peptide derived from mouse IL 33
Epitope Specificity	100-280
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Belongs to the IL-1 family. Highly divergent.
SUBUNIT	Forms a 1:1:1 heterotrimeric complex with its primary high-affinity receptor IL1RL1 and the coreceptor IL1RAP.
Post-translational modifications	Proteolytically converted to a mature form by CASP1 in vitro and calpains in vivo. Caspase-mediated proteolysis, once thought to activate IL33, rather acts as a switch to dampen its activity. Cathepsin G and elastase can cleave IL33 and generate highly active forms in activated neutrophils (IL-33(95-270), IL-33(99-270) and IL-33(109-270)). Proteolysis is not strictly required for biological activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2-associated cytokines.

Additional Information

Gene ID	77125
Other Names	C9orf26; DVS27; IL1F11; NF-HEV; NFEHEV; 9230117N10Rik; IL-33; IL33_HUMAN; IL33; Interleukin-1 family member 11 (IL-1F11); Nuclear factor from high endothelial venules (NF-HEV); NFHEV; IL33_MOUSE; interleukin 33; chromosome 9 open reading frame 26 (NF-HEV); DVS27-related protein; nuclear factor for high endothelial venules; interleukin-1 family, member 11
Dilution	WB=1:500-2000,IHC-P=1:50-200,IHC-F=1:50-200,ICC/IF=1:50-200,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	IL33 {ECO:0000312 MGI:MGI:1924375}
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: 29045903). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2-associated cytokines (By similarity). Also involved in activation of mast cells, basophils, eosinophils and natural killer cells (By similarity). Acts as an enhancer of polarization of alternatively activated macrophages (By similarity). Acts as a chemoattractant for Th2 cells, and may function as an 'alarmin', that amplifies immune responses during tissue injury (By similarity). 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 (PubMed: 34644537).
Cellular Location	Nucleus. Chromosome {ECO:0000250 UniProtKB:O95760}. Cytoplasm {ECO:0000250 UniProtKB:O95760}. Cytoplasmic vesicle, secretory vesicle {ECO:0000250 UniProtKB:O95760}. Secreted. Note=Secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore following cleavage by CELA1 (PubMed:35749514, PubMed:35794369) Associates with heterochromatin and mitotic chromosomes (By similarity). 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 (By similarity). {ECO:0000250 UniProtKB:O95760, ECO:0000269 PubMed:35749514, ECO:0000269 PubMed:35794369}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.