

Datasheet for ABIN1672843
IL-33 ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	IL-33 (IL33)
Binding Specificity:	AA 112-270
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-33
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Cell Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S112-T270
Specificity:	Expression system for standard: E.coli Immunogen sequence: S112-T270
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	IL-33 (IL33)
Alternative Name:	IL33 (IL33 Products)
Background:	<p>Protein 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). 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).</p> <p>Background: Interleukin 33(IL-33) is a cytokine belonging to the IL-1 superfamily. The IL33 gene maps to chromosome 9p24.1 by using of genomic database analysis. Recombinant mature human IL33 bound to ST2. The induction of type 2 cytokines by IL-33 in vivo is believed to induce the severe pathological changes observed in mucosal organs following administration of IL-33. IL33, an alarmin released from necrotic cells, is necessary for potent CD8 + T cell(CTL) responses to replicating, prototypic RNA, and DNA viruses in mice. IL33 prevented the downregulation of CXCR2 and inhibition of chemotaxis induced by activation of TLR4, and found that IL33 reverses the TLR4-induced reduction of CXCR2 expression via the inhibition of expression of GRK2.</p> <p>Synonyms: 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,</p> <p>Full Gene Name: Interleukin-33</p> <p>Cellular Localisation: Nucleus. Chromosome. Cytoplasmic vesicle, secretory vesicle. Secreted. Associates with heterochromatin and mitotic chromosomes. Translocation from the nucleus occurs upon biomechanical strain, depends on an intact microtubule network, and is ATP-dependent.</p>
Gene ID:	90865

Target Details

UniProt: [O95760](#)

Pathways: [Production of Molecular Mediator of Immune Response](#)

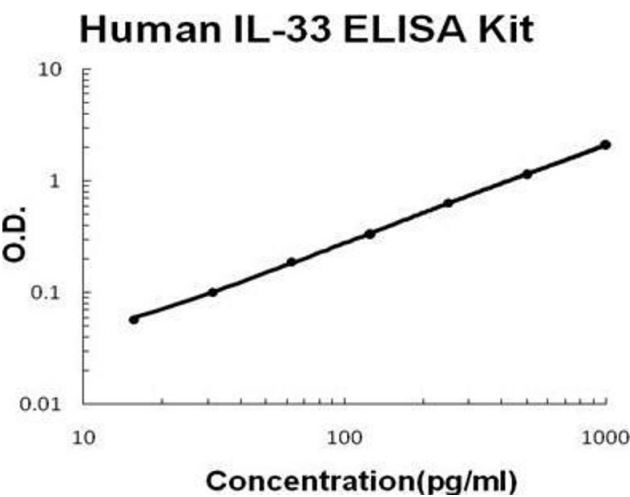
Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta. .
Plate:	Pre-coated
Protocol:	human IL-33 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-33 has been precoated onto 96-well plates. Standards(E.coli, S112-T270) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-33 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human IL-33 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human IL-33 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin, EDTA) or cell lysates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human IL-33 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 74, Standard deviation: 3.48, CV(%): 4.7• Sample 2: n=16, Mean(pg/ml): 383, Standard deviation: 19.15, CV(%): 5• Sample 3: n=16, Mean(pg/ml): 644, Standard deviation: 39.3, CV(%): 6.1,• Sample 1: n=24, Mean(pg/ml): 91, Standard deviation: 5.2, CV(%): 5.7• Sample 2: n=24, Mean(pg/ml): 411, Standard deviation: 22.61, CV(%): 5.5• Sample 3: n=24, Mean(pg/ml): 738, Standard deviation: 49.45, CV(%): 6.7
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Images



ELISA

Image 1. Human IL-33 PicoKine ELISA Kit standard curve