

Mouse IL-33 ELISA Kit ab171181

1 Image

Overview

Product name Mouse IL-33 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				< 10%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				< 10%

Sample type Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 31.2 pg/ml - 2000 pg/ml

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Mouse

Product overview Abcam's mouse IL-33 *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of mouse IL-33 in cell culture supernatants, serum and plasma (heparin, EDTA).

An IL-33 specific goat polyclonal antibody has been precoated onto 96-well plates. Standards and test samples are added to the wells and incubated. A biotinylated detection polyclonal antibody from goat, specific for IL-33 is then added followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. TMB is then used to visualize the HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the mouse IL-33 amount of sample captured in plate.

Platform Microplate

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-mouse IL-33 antibody Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti-mouse IL-33 antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant mouse IL-33 standard		2 x 10ng	2 x 10ng
Plate Seal		4 units	4 units
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Amber Bottle	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

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). In quiescent endothelia the uncleaved form is constitutively and abundantly expressed, and acts as a chromatin-associated nuclear factor with transcriptional repressor properties, it may sequester nuclear NF-kappaB/RELA, lowering expression of its targets (PubMed:21734074). This form is rapidly lost upon angiogenic or proinflammatory activation (PubMed:18787100).

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

Sequence similarities Belongs to the IL-1 family. Highly divergent.

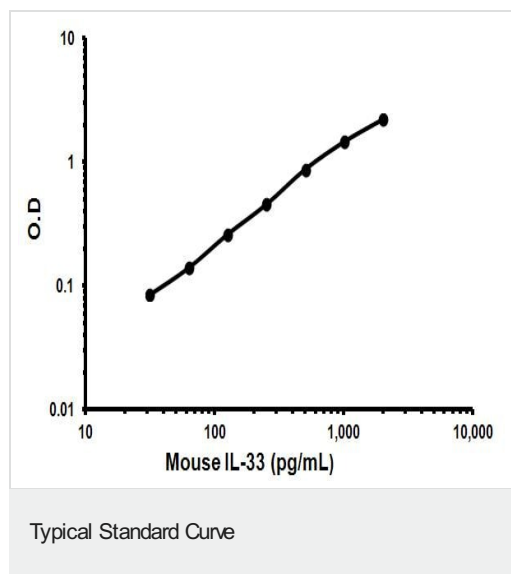
Domain The homeodomain-like HTH domain mediates nuclear localization and heterochromatin association.

Post-translational modifications The full length protein can be released from cells and is able to signal via the IL1RL1/ST2 receptor. However, proteolytic processing by CSTG/cathepsin G and ELANE/neutrophil elastase produces C-terminal peptides that are more active than the unprocessed full length protein. May also be proteolytically processed by calpains (PubMed:19596270). Proteolytic cleavage mediated by apoptotic caspases including CASP3 and CASP7 results in IL33 inactivation (PubMed:19559631). In vitro proteolytic cleavage by CASP1 was reported (PubMed:16286016) but could not be confirmed in vivo (PubMed:19465481) suggesting that IL33 is probably not a direct substrate for that caspase.

Cellular localization

Nucleus. Chromosome. Cytoplasmic vesicle, secretory vesicle. Secreted. Associates with heterochromatin and mitotic chromosomes (PubMed:17185418).

Images



Representative standard curve using ab171181

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