

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-33 Propeptide in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with mature recombinant human IL-33 and mature recombinant mouse IL-33 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human IL-33 Propeptide Met1-Ser111 Accession # O95760
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

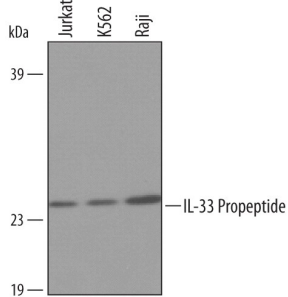
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

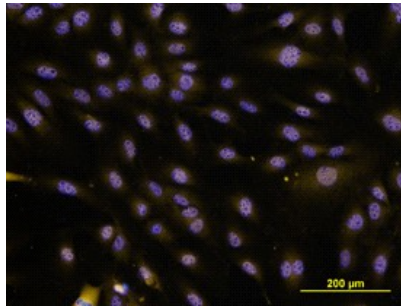
DATA

Western Blot



Detection of Human IL-33 Propeptide by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, Raji human Burkitt's lymphoma cell line, and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human IL-33 Propeptide Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4810) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for IL-33 Propeptide at approximately 31 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Immunocytochemistry



IL-33 in HUVEC Human Cells. IL-33 was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Goat Anti-Human IL-33 Propeptide Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4810) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the Northern-Lights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

IL-33 (interleukin 33; also NF-HEV and IL-1F11) is a 31-32 kDa member of the IL-1 family of proteins. It is expressed in endothelial cells and reportedly has two functions; first, it induces Th2-type cytokines, and second, it acts as a nuclear transcription factor. Human IL-33 is 270 amino acids (aa) in length. It contains a putative proregion (aa 1-111) and a mature segment (aa 112-270). The proregion contains a bipartite NLS (aa 61-78), plus an α-helical homeodomain-like HTH motif (aa 1-65). The HTH motif mediates nuclear localization and heterochromatin association. A potential caspase 1 cleavage site exists in human IL-33 (Ser111-Ser112), but not in IL-33 from canine, porcine or bovine. There is one splice variant that shows a deletion of aa 113-118. Over aa 1-111, human IL-33 propeptide is 45% aa identical to mouse IL-33 propeptide.