



# Recombinant Human IL-33

<b>Catalog #</b>	EPT054
<b>Expression Host</b>	E.coli
<b>DESCRIPTION</b>	Recombinant Human Interleukin-33 is produced by our E.coli expression system and the target gene encoding Ser112-Thr270 is expressed.
<b>Accession</b>	O95760
<b>Synonyms</b>	Interleukin-33; IL-33; Interleukin-1 Family Member 11; IL-1F11; Nuclear Factor From High Endothelial Venules; NF-HEV; IL33; C9orf26; IL1F11; NFHEV
<b>Mol Mass</b>	18.1 KDa
<b>AP Mol Mass</b>	18 KDa, reducing conditions
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Less than 0.001 ng/μg (0.01 EU/μg) as determined by LAL test.
<b>FORMULATION</b>	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
<b>RECONSTITUTION</b>	Always centrifuge tubes before opening. Do not mix by





vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100µg/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## SHIPPING

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

## STORAGE

Lyophilized protein should be stored at  $< -20^{\circ}\text{C}$ , though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at  $4-7^{\circ}\text{C}$  for 2-7 days.

Aliquots of reconstituted samples are stable at  $< -20^{\circ}\text{C}$  for 3 months.

## BACKGROUND

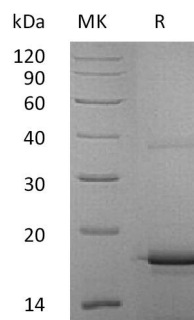
Interleukin-33 (IL-33) was initially discovered as a nuclear factor NF-HEV abundantly expressed in high endothelial venules. It is a 30-32 kD pro-inflammatory protein with intracellular and extracellular activities and a chromatin-associated cytokine of the IL-1 family with high sequence and structural similarity to IL-1 and IL-18. IL-33 is highly and selectively expressed by





high endothelial venule endothelial cells (HEVECs) in human tonsils, Peyer's patches, and lymph nodes. It contains a bipartite nuclear localization signal at the C-terminus, and is targeted to the nucleus when ectopically expressed in human umbilical vein endothelial cells (HUVECs) and HeLa cells. The C-terminal fragment, corresponding to mature IL-33, binds and triggers signaling. IL-33 mediates its biological effects via Toll-interleukin 1 (IL-1) receptor (TIR) domain-containing receptor ST2, activates NF-kappaB and MAP kinases, and drives production of T(H)2-associated cytokines from in vitro polarized T(H)2 cells. In vivo, IL-33 induces the expression of IL-4, IL-5, and IL-13 and leads to severe pathological changes in mucosal organs. Human IL-33 is 270 amino acids in length.

## **SDS-PAGE**





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