Recombinant IL33 protein (His tag)

Catalog Number	544244
Synonyms	IL-33; Interleukin-1 family member 11; IL-1F11; Nuclear factor from high endothelial venules; NF-HEV; 95-270; 99-270; 109-270
Species	Human
Expression System	E. coli
Accession	O95760
Molecular Weight	Predictes a molecular mass of 19.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	117-270
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 117-270 aa (O95760) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Interleukin-33 (IL-33) Fragment (residues 117-270) is a high-purity, stable protein designed for structural and biochemical research. This fragment captures a soluble and functional region of IL-33, enabling studies on its role in immune signaling, inflammation, and cellular activation without the complexities of the full-length protein. Interleukin-33 (IL-33) is a key cytokine in the interleukin-1 family that binds to the IL1RL1/ST2 receptor, activating NF-kappa-B and MAPK signaling pathways. It plays a critical role in immune responses by promoting Th2 cell maturation, secretion of type 2-associated cytokines, and activation of mast cells, eosinophils, basophils, and natural killer cells. IL-33 also functions as an 'alarmin' during tissue injury, amplifying immune reactions and acting as a chemoattractant for Th2 cells. In its full-length form, IL-33 is constitutively expressed in quiescent endothelial cells as a nuclear factor with transcriptional repressor properties, sequestering NF-kappaB/RELA to modulate gene expression. It localizes to the nucleus, cytoplasm, secretory vesicles, and is secreted into the extracellular milieu via mechanisms involving cargo receptors and gasdermin-D pores, highlighting its dual roles in nuclear regulation and extracellular signaling.