Animal-Free IL-33 Protein, Mouse (His)

Cat. No.:	HY-P700208AF
Synonyms:	Interleukin-33; IL-33; Interleukin-1 FamILy Member 11; IL-1F11; Nuclear Factor From High Endothelial Venules; NF-HEV; IL33; C9orf26; IL1F11; NFHEV
Species:	Mouse
Source:	E. coli
Accession:	Q8BVZ5 (S109-I266)
Gene ID:	77125
Molecular Weight:	Approximately 18.51 kDa

PROPERTIES

AA Sequence	M S I Q G T S L L T Q S P A S L S T Y N D Q S V S F V L E N G C Y V I N V D D S G K D Q E Q D Q V L L R Y Y E S P C P A S Q S G D G V D G K K L M V N M S P I K D T D I W L H A N D K D Y S V E L Q R G D V S P P E Q A F F V L H K K S S D F V S F E C K N L P G T Y I G V K D N Q L A L V E E K D E S C N N I M F K L S K I
Biological Activity	Measure by its ability to induce proliferation in D10.G4.1 cells. The ED_{50} for this effect is <40 pg/mL. The specific activity of recombinant mouse IL-33 is >2 x 10^6 IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 μg of the protein by the LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The IL-33 Protein, a cytokine, binds to and signals through the IL1RL1/ST2 receptor, activating NF-kappa-B and MAPK signaling pathways in target cells. It is implicated in the maturation of Th2 cells, inducing the secretion of T-helper type 2-associated cytokines. Furthermore, IL-33 is involved in the activation of mast cells, basophils, eosinophils, and natural killer cells, acting as an enhancer of the polarization of alternatively activated macrophages. It serves as a chemoattractant for Th2 cells and may function as an 'alarmin,' amplifying immune responses during tissue injury. Notably, it induces rapid UCP2-dependent mitochondrial rewiring, attenuating the generation of reactive oxygen species and preserving the integrity

of the Krebs cycle required for the persistent production of itaconate, leading to GATA3-dependent differentiation of inflammation-resolving alternatively activated macrophages. In quiescent endothelia, the uncleaved form of IL-33 is constitutively and abundantly expressed, acting as a chromatin-associated nuclear factor with transcriptional repressor properties, potentially sequestering nuclear NF-kappaB/RELA and lowering the expression of its targets. This form is rapidly lost upon angiogenic or pro-inflammatory activation.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA