IL-33 Protein

PRODUCT OVERVIEW

Product Name	IL-33, Protein
Full Product Name	IL-33
Product Gene Name	IL-33 protein
Product Synonym Names	Interleukin-33; IL-33; Interleukin-1 Family Member 11; IL-1F11; Nuclear Factor From High Endothelial Venules; NF-HEV; IL33; C9orf26; IL1F11; NFHEV
Host	Human
Form/Format	Lyophilized
Purity/Purification	Greater than 95% as determined by reducing SDS-PAGE.
Preparation and Storage	Lyophilized protein should be stored at <-20 degree C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7 degree C for 2-7 days. Aliquots of reconstituted samples are stable at <-20 degree C for 3 months.
Molecular Weight	29,486 Da
3D Structure	ModBase 3D Structure for Q66H70
Expression System	E Coli
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 mug/ml. Dissolve the lyophilized protein in ddH2O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Endotoxin	Less than 0.1 ng/ug (1 IEU/ug) as determined by LAL test.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for IL-33 protein	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, Peyers'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. Description: Recombinant Human Interleukin-33 is produced by our E Coli expression system and the target gene encoding Ser112-Thr270 is expressed.
Other Notes	Small volumes of IL-33 protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for IL-33 purchase	MBS8532863 is a protein targeting IL-33. Host: Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL-33. It may not necessarily be applicable to this product.

NCBI GI #	62079057
NCBI GeneID	361749
NCBI Accession #	NP_001014188.1
UniProt Primary Accession #	Q66H70
UniProt Related Accession #	Q66H70
GenBank Nucleotide #	NM_001014166.1
NCBI Official Full Name	interleukin-33
NCBI Official Synonym Full Names	interleukin 33
NCBI Official Symbol	Il33
NCBI Official Synonym Symbols	RGD1311155
UniProt Protein Name	Interleukin-33
UniProt Gene Name	Il33
UniProt Synonym Gene Names	IL-33
NCBI Protein Information	interleukin-33
UniProt Comments for IL-33	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. 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 ().
Research Articles on IL-33	**1.** A strong relationship of IL-33/ST2 with natriuretic peptides and classical inflammatory mediators was observed in cardiac tissue. Expression of sST2 in cardiac, adipose and liver tissue decreased in obese rats compared with controls, suggesting an involvement for IL-33/ST2 system in molecular mechanisms of obesity.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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