

Datasheet for ABIN3093036

IL-33 Protein (AA 1-270) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	IL-33 (IL33)
Protein Characteristics:	AA 1-270
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL-33 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MKPKMKYSTN KISTAKWKNT ASKALCFKLG KSQQKAKEVC PMYFMKLRSGLMIKKEACYF RRETTKRPSL KTGRKHKRHL VLAACQQQST VECFAFGISG VQKYTRALHD SSITGISPIT EYLASLSTYN DQSITFALED ESYEIYVEDL KKDEKKDKVL LSYYESQHPS NESGDGVDGK MLMVTLSPTK DFWLHANNKE HVELHKCEK PLPDQAFFVL HNMHSNCVSF ECKTDPGVFI GVKDNHLALI KVDSSNLCT ENILFKLSET</p> <p>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> Made in Germany - from design to production - by highly experienced protein experts.

Product Details

- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	IL-33 (IL33)
Alternative Name:	IL33 (IL33 Products)

Target Details

Background:	<p>Interleukin-33 (IL-33) (Interleukin-1 family member 11) (IL-1F11) (Nuclear factor from high endothelial venules) (NF-HEV) [Cleaved into: Interleukin-33 (95-270), Interleukin-33 (99-270), Interleukin-33 (109-270)],FUNCTION: 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 (PubMed:16286016, PubMed:19841166). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2-associated cytokines (PubMed:17853410, PubMed:18836528). Also involved in activation of mast cells, basophils, eosinophils and natural killer cells (PubMed:17853410, PubMed:18836528). Acts as an enhancer of polarization of alternatively activated macrophages (PubMed:19841166). Acts as a chemoattractant for Th2 cells, and may function as an 'alarmin', that amplifies immune responses during tissue injury (PubMed:17853410, PubMed:18836528). Induces rapid UCP2-dependent mitochondrial rewiring that attenuates the generation of reactive oxygen species and preserves the integrity of Krebs cycle required for persistent production of itaconate and subsequent GATA3-dependent differentiation of inflammation-resolving alternatively activated macrophages (By similarity). {ECO:0000250 UniProtKB:Q8BVZ5, ECO:0000269 PubMed:16286016, ECO:0000269 PubMed:17853410, ECO:0000269 PubMed:18836528, ECO:0000269 PubMed:19841166}., FUNCTION: In quiescent endothelia the uncleaved form is constitutively and abundantly expressed, and acts as a chromatin-associated nuclear factor with transcriptional repressor properties, it may sequester nuclear NF-kappaB/RELA, lowering expression of its targets (PubMed:21734074). This form is rapidly lost upon angiogenic or pro-inflammatory activation (PubMed:18787100). {ECO:0000269 PubMed:18787100, ECO:0000269 PubMed:21734074}.</p>
Molecular Weight:	30.8 kDa
UniProt:	O95760
Pathways:	Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

Application Details

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months