Datasheet for ABIN3122670

Gasdermin A3 Protein (GSDMA3) (AA 1-464) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	Gasdermin A3 (GSDMA3)
Protein Characteristics:	AA 1-464
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Gasdermin A3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MPVFEDVTRA LVRELNPRGD LTPLDSLIDF KHFRPFCLVL RKRKSTLFWG ARYVRTDYTL LDLLEPGSSP SDLTDSGNFS FKNMLDVQVQ GLVEVPKTVK VKGTAGLSQS STLEVQTLSV APSALENLKK ERKLSADHSF LNEMRYHEKN LYVVMEAVEA KQEVTVEQTG NANAIFSLPS LALLGLQGSL NNNKAVTIPK GCVLAYRVRL LRVFLFNLWD IPYICNDSMQ TFPKIRRVPC SAFISPTQMI SEEPEEEKLI GEMHEDFKTL KEEVQRETQE VEKLSPVGRS SLLTSLSHLL GKKKELQDLE QKLEGALDKG QKVTLEALPK DVLLSKDAMD AILYFLGALT ELTEEQLKIL VKSLEKKILP VQLKLVESTL EQNFLQDKEG VFPLQPDLLS SLGEEELTLT EALVGLSGLE VQRSGPQYAW DPDTRHNLCA LYAGLSLLHL LSRKSNALTY CALS **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.**

Product Details

Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • 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:	Gasdermin A3 (GSDMA3)
Alternative Name:	Gsdma3
Background:	Gasdermin-A3 (Gasdermin-3) [Cleaved into: Gasdermin-A3, N-terminal (GSDMA3-NT), Gasdermin-A3, C-terminal (GSDMA3-CT)],FUNCTION: [Gasdermin-A3]: Precursor of a pore-forming protein involved in the transition from catagen to telogen at the end of hair follicle morphogenesis (PubMed:15475261, PubMed:26375003, PubMed:27281216). This form constitutes the precursor of the pore: upon cleavage, the released N-terminal moiety (Gasdermin-A3, N-terminal) binds to membranes and forms pores, triggering pyroptosis (PubMed:26375003, PubMed:27281216, PubMed:35545613). This form acts as a sensor of infection: activation is triggered by cleavage by some bacterial effector protein, which releases the N-terminal moiety (Gasdermin-A3, N-terminal) (By similarity). {ECO:0000250|UniProtKB:Q9EST1, ECO:0000269|PubMed:15475261, ECO:0000269|PubMed:26375003, ECO:0000269|PubMed:27281216, ECO:0000269|PubMed:35545613}., FUNCTION: [Gasdermin-A3, N-terminal]: Pore-forming protein that causes membrane permeabilization and pyroptosis (PubMed:26375003, PubMed:27281216, PubMed:35545613). Released upon cleavage by some bacterial effector protein, and binds to membrane inner leaflet lipids (By similarity). Homooligomerizes within the membrane and forms pores of 10-15 nanometers (nm) of inner diameter, allowing the release of mature interleukin-1 (IL1B and IL18) and triggering pyroptosis (PubMed:27281216, PubMed:33883744, PubMed:35545613). Binds to membrane inner leaflet lipids, including bisphosphorylated phosphatidylinositols, such as phosphatidylinositol (4,5)-bisphosphate, as well as phosphatidylinositol (3,4,5)-bisphosphate, and more weakly to monophosphorylated phosphatidylinositols (PubMed:27281216). Also binds to bacterial and mitochondrial lipids, including cardiolipin, and exhibits bactericidal activity (PubMed:27281216, PubMed:29695864). Plays a role in the transition from catagen to telogen at the end of hair follicle morphogenesis, possibly by regulating hair follicle stem cell niche maintenance (PubMed:15475261, PubMed:15737203, PubMed:17572385, PubMed:22155111, PubMed:32302611). Also required for mammary gland development (PubMed:28168650). {ECO:0000250|UniProtKB:Q9EST1, ECO:0000269|PubMed:15475261, ECO:0000269|PubMed:15737203, ECO:0000269|PubMed:17572385, ECO:0000269|PubMed:22155111, ECO:0000269|PubMed:26375003, ECO:0000269|PubMed:27281216, ECO:0000269|PubMed:28168650, ECO:0000269|PubMed:29695864, ECO:0000269|PubMed:32302611, ECO:0000269|PubMed:33883744, ECO:0000269|PubMed:35545613}.
Molecular Weight:	52.0 kDa

Target Details

UniProt:	Q5Y4Y6

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 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!
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

