Datasheet for ABIN3131916

NINJ1 Protein (AA 1-152) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	NINJ1
Protein Characteristics:	AA 1-152
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NINJ1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MESGTEEYEL NGDLRPGSPG SPDALPPRWG LRNRPINVNH YANKKSAAES MLDIALLMAN ASQLKAVVEQ GNDFAFFVPL VVLISISLVL QIGVGVLLIF LVKYDLNNPA KHAKLDFLNN LATGLVFIIV VVNIFITAFG VQKPVMDVAP RQ **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.**
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification. • 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	NINJ1
Alternative Name:	Ninj1 (NINJ1 Products)
Background:	Ninjurin-1 (Nerve injury-induced protein 1) [Cleaved into: Secreted ninjurin-1 (Soluble ninjurin-1) (sNinJ1)],FUNCTION: [Ninjurin-1]: Effector of necroptotic and pyroptotic programmed cell death that mediates plasma membrane rupture (cytolysis) (PubMed:19557008, PubMed:33472215, PubMed:36468682, PubMed:37196676, PubMed:37198476). Acts downstream of Gasdermin (GSDMA, GSDMB, GSDMC, GSDMD, or GSDME) or MLKL during pyroptosis or necroptosis, respectively: oligomerizes in response to death stimuli and promotes plasma membrane rupture by introducing hydrophilic faces of 2 alpha helices into the hydrophobic membrane, leading to release intracellular molecules named damage-associated molecular patterns (DAMPs) that propagate the inflammatory response (PubMed:33472215, PubMed:37196676, PubMed:37198476). Acts as a regulator of Toll-like receptor 4 (TLR4) signaling triggered by lipopolysaccharide (LPS) during systemic inflammation, directly binds LPS (PubMed:25860173). Involved in leukocyte migration during inflammation by promoting transendothelial migration of macrophages via homotypic binding (PubMed:24917672). Promotes the migration of monocytes across the brain endothelium to central nervous system inflammatory lesions (By similarity). Also acts as a homophilic transmembrane adhesion molecule involved in various processes such as axonal growth, cell chemotaxis and angiogenesis (PubMed:24347169, PubMed:24917672, PubMed:31526566). Promotes cell adhesion by mediating homophilic interactions via its extracellular N-terminal adhesion motif (N-NAM) (PubMed:24917672, PubMed:30510259). Involved in the progression of the inflammatory stress by promoting cell-to-cell interactions between immune cells and endothelial cells (PubMed:24917672, PubMed:30510259). Plays a role in nerve regeneration by promoting maturation of Schwann cells (PubMed:31526566). Acts as a regulator of angiogenesis (PubMed:25766274, PubMed:30354207). Promotes the formation of new vessels by mediating the interaction between capillary pericyte cells and endothelial cells (PubMed:25766274, PubMed:30354207). Also mediates vascular functions in penile tissue as well as vascular formation (PubMed:24979788). Promotes osteoclasts development by enhancing the survival of prefusion osteoclasts (PubMed:30700695). Also involved in striated muscle growth and differentiation (PubMed:31091274). Also involved in cell senescence in a p53/TP53 manner, possibly by acting as an indirect regulator of p53/TP53 mRNA translation (PubMed:23690620, PubMed:29073078). {ECO:0000250|UniProtKB:Q92982, ECO:0000269|PubMed:19557008, ECO:0000269|PubMed:23690620, ECO:0000269|PubMed:24347169, ECO:0000269|PubMed:24917672, ECO:0000269|PubMed:24979788, ECO:0000269|PubMed:25766274,

Target Details

	ECO:0000269|PubMed:25860173, ECO:0000269|PubMed:29073078, ECO:0000269|PubMed:30354207, ECO:0000269|PubMed:30510259, ECO:0000269|PubMed:30700695, ECO:0000269|PubMed:31091274, ECO:0000269|PubMed:31526566, ECO:0000269|PubMed:33472215, ECO:0000269|PubMed:36468682, ECO:0000269|PubMed:37196676, ECO:0000269|PubMed:37198476}., FUNCTION: [Secreted ninjurin-1]: Secreted form generated by cleavage, which has chemotactic activity (PubMed:23142597). Acts as an anti-inflammatory mediator by promoting monocyte recruitment, thereby ameliorating atherosclerosis (PubMed:32883094). {ECO:0000269|PubMed:23142597, ECO:0000269|PubMed:32883094}.
Molecular Weight:	16.6 kDa
UniProt:	O70131

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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

