

Datasheet for ABIN3118342

PNPLA8 Protein (AA 1-782) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	PNPLA8
Protein Characteristics:	AA 1-782
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PNPLA8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MSINLTVDIY IYLLSNARSV CGKQRSKQLY FLFSPKHYWR ISHISLQRGF HTNIIRCKWT</p> <p>KSEAHSCSKH CYSPSNHGLH IGILKLSTSA PKGLTKVNIC MSRIKSTLNS VSKAVFGNQN</p> <p>EMISRLAQFK PSSQILRKVS DSGWLKQKNI KQAIKSLKKY SDKSAEKSPF PEEKSHIIDK</p> <p>EEDIGKRS LF HYTSSITTKF GDSFYFLSNH INSYFKRKEK MSQQKENEHF RDKSELEDKK</p> <p>VEEGKL RSPD PGILAYKPGS ESVHTVDKPT SPSAIPDVLQ VSTKQSIANF LSRPTEGVQA</p> <p>LVGGYIGGLV PKLKYDSKSQ SEEQEPAKT DQAVSKDRNA EEKRLSLQR EKIIARVSID</p> <p>NRTRALVQAL RRTTDPKLCI TRVEELTFHL LEFPEGKGVA VKERIIPYLL RLRQIKDETL</p> <p>QAAVREILAL IGYVDPVKGR GIRILSIDGG GTRGVVALQT LRKLVELTQK PVHQLFDYIC</p> <p>GVSTGAILAF MLGLFHMP LD ECEELYRKL G SDVFSQNVIV GTVKMSWSHA FYDSQTWENI</p> <p>LKDRMG SALM IETARNPTCP KVA AVSTIVN RGITPKAFVF RNYGHFPGIN SHYLGGCQYK</p> <p>MWQAIRASSA APGYFAEYAL GNDLHQDGGL LLNNPSALAM HECKCLWPDV PLECIVSLGT</p>

GRYESDVRNT VTYTSLKTKL SNVINSATDT EEVHIMLDGL LPPDITYFRFN PVMCENIPLD
ESRNEKLDQL QLEGLKYIER NEQKMKKVAK ILSQEKTTLQ KINDWIKLKT DMYEGLPFFS KL

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 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®).

Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: PNPLA8

Alternative Name: PNPLA8 ([PNPLA8 Products](#))

Background: Calcium-independent phospholipase A2-gamma (EC 3.1.1.-) (EC 3.1.1.5) (Intracellular membrane-associated calcium-independent phospholipase A2 gamma) (iPLA2-gamma) (PNPLA-gamma) (Patatin-like phospholipase domain-containing protein 8) (iPLA2-2),FUNCTION: Calcium-independent and membrane-bound phospholipase, that catalyzes the esterolytic cleavage of fatty acids from glycerophospholipids to yield free fatty acids and lysophospholipids, hence regulating membrane physical properties and the release of lipid second messengers and growth factors (PubMed:10833412, PubMed:10744668, PubMed:15695510, PubMed:15908428, PubMed:17213206, PubMed:18171998, PubMed:28442572). Hydrolyzes phosphatidylethanolamine, phosphatidylcholine and probably phosphatidylinositol with a possible preference for the former (PubMed:15695510). Has also a broad substrate specificity in terms of fatty acid moieties, hydrolyzing saturated and mono-unsaturated fatty acids at nearly equal rates from either the sn-1 or sn-2 position in diacyl phosphatidylcholine (PubMed:10833412, PubMed:10744668, PubMed:15695510, PubMed:15908428). However, has a weak activity toward polyunsaturated fatty acids at the sn-2 position, and thereby favors the production of 2-arachidonoyl lysophosphatidylcholine, a key branch point metabolite in eicosanoid signaling (PubMed:15908428). On the other hand, can produce arachidonic acid from the sn-1 position of diacyl phospholipid and from the sn-2 position of arachidonate-containing plasmalogen substrates (PubMed:15908428). Therefore, plays an important role in the mobilization of arachidonic acid in response to cellular stimuli and the generation of lipid second messengers (PubMed:15695510, PubMed:15908428). Can also hydrolyze lysophosphatidylcholine (PubMed:15695510). In the mitochondrial compartment, catalyzes the hydrolysis and release of oxidized aliphatic chains from cardiolipin and integrates mitochondrial bioenergetics and signaling. It is essential for maintaining efficient bioenergetic mitochondrial function through tailoring mitochondrial membrane lipid metabolism and composition (PubMed:28442572). {ECO:0000250|UniProtKB:Q8K1N1, ECO:0000269|PubMed:10744668, ECO:0000269|PubMed:10833412, ECO:0000269|PubMed:15695510, ECO:0000269|PubMed:15908428, ECO:0000269|PubMed:17213206, ECO:0000269|PubMed:18171998,

Target Details

	ECO:0000269 PubMed:28442572}.
Molecular Weight:	88.5 kDa
UniProt:	Q9NP80

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:	<p>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.</p> <p>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!</p>
Restrictions:	For Research Use only

Handling

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