Datasheet for ABIN3084143

NAPEPLD Protein (AA 1-393) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	NAPEPLD
Protein Characteristics:	AA 1-393
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NAPEPLD protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MDENESNQSL MTSSQYPKEA VRKRQNSARN SGASDSSRFS RKSFKLDYRL EEDVTKSKKG KDGRFVNPWP TWKNPSIPNV LRWLIMEKDH SSVPSSKEEL DKELPVLKPY FITNPEEAGV REAGLRVTWL GHATVMVEMD ELIFLTDPIF SSRASPSQYM GPKRFRRSPC TISELPPIDA VLISHNHYDH LDYNSVIALN ERFGNELRWF VPLGLLDWMQ KCGCENVIEL DWWEENCVPG HDKVTFVFTP SQHWCKRTLM DDNKVLWGSW SVLGPWNRFF FAGDTGYCPA FEEIGKRFGP FDLAAIPIGA YEPRWFMKYQ HVDPEEAVRI HTDVQTKKSM AIHWGTFALA NEHYLEPPVK LNEALERYGL NAEDFFVLKH GESRYLNNDD ENF **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.

Product Details

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)

Target Details

Target:	NAPEPLD
Alternative Name:	NAPEPLD (NAPEPLD Products)
Background:	N-acyl-phosphatidylethanolamine-hydrolyzing phospholipase D (N-acyl phosphatidylethanolamine phospholipase D) (NAPE-PLD) (NAPE-hydrolyzing phospholipase D) (EC 3.1.4.54),FUNCTION: D-type phospholipase that hydrolyzes N-acyl-phosphatidylethanolamines (NAPEs) to produce bioactive N-acylethanolamines/fatty acid ethanolamides (NAEs/FAEs) and phosphatidic acid (PubMed:14634025, PubMed:16527816, PubMed:27571266, PubMed:25684574). Cleaves the terminal phosphodiester bond of diacyl- and alkenylacyl-NAPEs, primarily playing a role in the generation of long-chain saturated and monounsaturated NAEs in the brain (By similarity). May control NAPE homeostasis in dopaminergic neuron membranes and regulate neuron survival, partly through RAC1 activation (By similarity). As a regulator of lipid metabolism in the adipose tissue, mediates the crosstalk between adipocytes, gut microbiota and immune cells to control body temperature and weight. In particular, regulates energy homeostasis by promoting cold-induced brown or beige adipocyte differentiation program to generate heat from fatty acids and glucose. Has limited D-type phospholipase activity toward N-acyl lyso-NAPEs (By similarity). {ECO:0000250|UniProtKB:Q8BH82, ECO:0000269|PubMed:14634025, ECO:0000269|PubMed:16527816, ECO:0000269|PubMed:25684574, ECO:0000269|PubMed:27571266}.
Molecular Weight:	45.6 kDa
UniProt:	Q6IQ20

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

Application Details

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

