Datasheet for ABIN3093530

LIPE Protein (AA 1-1076) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	LIPE
Protein Characteristics:	AA 1-1076
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LIPE protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MEPGSKSVSR SDWQPEPHQR PITPLEPGPE KTPIAQPESK TLQGSNTQQK PASNQRPLTQ QETPAQHDAE SQKEPRAQQK SASQEEFLAP QKPAPQQSPY IQRVLLTQQE AASQQGPGLG KESITQQEPA LRQRHVAQPG PGPGEPPPAQ QEAESTPAAQ AKPGAKREPS APTESTSQET PEQSDKQTTP VQGAKSKQGS LTELGFLTKL QELSIQRSAL EWKALSEWVT DSESESDVGS SSDTDSPATM GGMVAQGVKL GFKGKSGYKV MSGYSGTSPH EKTSARNHRH YQDTASRLIH NMDLRTMTQS LVTLAEDNIA FFSSQGPGET AQRLSGVFAG VREQALGLEP ALGRLLGVAH LFDLDPETPA NGYRSLVHTA RCCLAHLLHK SRYVASNRRS IFFRTSHNLA ELEAYLAALT QLRALVYYAQ RLLVTNRPGV LFFEGDEGLT ADFLREYVTL HKGCFYGRCL GFQFTPAIRP FLQTISIGLV SFGEHYKRNE TGLSVAASSL FTSGRFAIDP ELRGAEFERI TQNLDVHFWK AFWNITEMEV LSSLANMASA TVRVSRLLSL PPEAFEMPLT ADPTLTVTIS PPLAHTGPGP VLVRLISYDL REGQDSEELS SLIKSNGQRS LELWPRPQQA PRSRSLIVHF HGGGFVAQTS RSHEPYLKSW AQELGAPIIS IDYSLAPEAP FPRALEECFF AYCWAIKHCA LLGSTGERIC

LAGDSAGGNL CFTVALRAAA YGVRVPDGIM AAYPATMLQP AASPSRLLSL MDPLLPLSVL SKCVSAYAGA KTEDHSNSDQ KALGMMGLVR RDTALLLRDF RLGASSWLNS FLELSGRKSQ KMSEPIAEPM RRSVSEAALA QPQGPLGTDS LKNLTLRDLS LRGNSETSSD TPEMSLSAET LSPSTPSDVN FLLPPEDAGE EAEAKNELSP MDRGLGVRAA FPEGFHPRRS SQGATQMPLY SSPIVKNPFM SPLLAPDSML KSLPPVHIVA CALDPMLDDS VMLARRLRNL GQPVTLRVVE DLPHGFLTLA ALCRETRQAA ELCVERIRLV LTPPAGAGPS GETGAAGVDG GCGGRH

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.

Product Details

	• 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:	LIPE
Alternative Name:	LIPE (LIPE Products)
Background:	Hormone-sensitive lipase (HSL) (EC 3.1.1.79) (Monoacylglycerol lipase LIPE) (EC 3.1.1.23) (Retinyl ester hydrolase) (REH),FUNCTION: Lipase with broad substrate specificity, catalyzing the hydrolysis of triacylglycerols (TAGs), diacylglycerols (DAGs), monoacylglycerols (MAGs), cholesteryl esters and retinyl esters (PubMed:8812477, PubMed:15955102, PubMed:15716583, PubMed:19800417). Shows a preferential hydrolysis of DAGs over TAGs and MAGs and preferentially hydrolyzes the fatty acid (FA) esters at the sn-3 position of the glycerol backbone in DAGs (PubMed:19800417). Preferentially hydrolyzes FA esters at the sn-1 and sn-2 positions of the glycerol backbone in TAGs (By similarity). Catalyzes the hydrolysis of 2-arachidonoylglycerol, an endocannabinoid and of 2-acetyl monoalkylglycerol ether, the penultimate precursor of the pathway for de novo synthesis of platelet-activating factor (By similarity). In adipose tissue and heart, it primarily hydrolyzes stored triglycerides to free fatty acids, while in steroidogenic tissues, it principally converts cholesteryl esters to free cholesterol for steroid hormone production (By similarity). {ECO:0000250|UniProtKB:P15304, ECO:0000250|UniProtKB:P54310, ECO:0000269|PubMed:15716583, ECO:0000269|PubMed:15955102, ECO:0000269|PubMed:19800417, ECO:0000269|PubMed:8812477}.

Target Details

Molecular Weight:	116.6 kDa
UniProt:	Q05469
Pathways:	AMPK Signaling, Monocarboxylic Acid Catabolic Process, Lipid Metabolism

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

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process