Datasheet for ABIN3113513

SREBF1 Protein (AA 1-1147) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	SREBF1
Protein Characteristics:	AA 1-1147
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SREBF1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MDEPPFSEAA LEQALGEPCD LDAALLTDIE DMLQLINNQD SDFPGLFDPP YAGSGAGGTD PASPDTSSPG SLSPPPATLS SSLEAFLSGP QAAPSPLSPP QPAPTPLKMY PSMPAFSPGP GIKEESVPLS ILQTPTPQPL PGALLPQSFP APAPPQFSST PVLGYPSPPG GFSTGSPPGN TQQPLPGLPL ASPPGVPPVS LHTQVQSVVP QQLLTVTAAP TAAPVTTTVT SQIQQVPVLL QPHFIKADSL LLTAMKTDGA TVKAAGLSPL VSGTTVQTGP LPTLVSGGTI LATVPLVVDA EKLPINRLAA GSKAPASAQS RGEKRTAHNA IEKRYRSSIN DKIIELKDLV VGTEAKLNKS AVLRKAIDYI RFLQHSNQKL KQENLSLRTA VHKSKSLKDL VSACGSGGNT DVLMEGVKTE VEDTLTPPPS DAGSPFQSSP LSLGSRGSGS GGSGSDSEPD SPVFEDSKAK PEQRPSLHSR GMLDRSRLAL CTLVFLCLSC NPLASLLGAR GLPSPSDTTS VYHSPGRNVL GTESRDGPGW AQWLLPPVVW LLNGLLVLVS LVLLFVYGEP VTRPHSGPAV YFWRHRKQAD LDLARGDFAQ AAQQLWLALR ALGRPLPTSH LDLACSLLWN LIRHLLQRLW VGRWLAGRAG GLQQDCALRV DASASARDAA LVYHKLHQLH TMGKHTGGHL TATNLALSAL NLAECAGDAV SVATLAEIYV

AAALRVKTSL PRALHFLTRF FLSSARQACL AQSGSVPPAM QWLCHPVGHR FFVDGDWSVL STPWESLYSL AGNPVDPLAQ VTQLFREHLL ERALNCVTQP NPSPGSADGD KEFSDALGYL QLLNSCSDAA GAPAYSFSIS SSMATTTGVD PVAKWWASLT AVVIHWLRRD EEAAERLCPL VEHLPRVLQE SERPLPRAAL HSFKAARALL GCAKAESGPA SLTICEKASG YLQDSLATTP ASSSIDKAVQ LFLCDLLLVV RTSLWRQQQP PAPAPAAQGT SSRPQASALE LRGFQRDLSS LRRLAQSFRP AMRRVFLHEA TARLMAGASP TRTHQLLDRS LRRRAGPGGK GGAVAELEPR PTRREHAEAL LLASCYLPPG FLSAPGQRVG MLAEAARTLE KLGDRRLLHD CQQMLMRLGG GTTVTSS

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!

Product Details

	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)

Target Details

Target:	SREBF1
Alternative Name:	SREBF1 (SREBF1 Products)
Background:	Sterol regulatory element-binding protein 1 (SREBP-1) (Class D basic helix-loop-helix protein 1) (bHLHd1) (Sterol regulatory element-binding transcription factor 1) [Cleaved into: Processed sterol regulatory element-binding protein 1 (Transcription factor SREBF1)],FUNCTION: [Sterol regulatory element-binding protein 1]: Precursor of the transcription factor form (Processed sterol regulatory element-binding protein 1), which is embedded in the endoplasmic reticulum membrane (PubMed:32322062). Low sterol concentrations promote processing of this form, releasing the transcription factor form that translocates into the nucleus and activates transcription of genes involved in cholesterol biosynthesis and lipid homeostasis (By similarity). {ECO:0000250|UniProtKB:Q9WTN3, ECO:0000269|PubMed:32322062}., FUNCTION: [Processed sterol regulatory element-binding protein 1]: Key transcription factor that regulates expression of genes involved in cholesterol biosynthesis and lipid homeostasis (PubMed:8402897, PubMed:12177166, PubMed:32322062). Binds to the sterol regulatory element 1 (SRE-1) (5'-ATCACCCCAC-3'). Has dual sequence specificity binding to both an E-box motif (5'-ATCACGTGA-3') and to SRE-1 (5'-ATCACCCCAC-3') (PubMed:8402897, PubMed:12177166). Regulates the promoters of genes involved in cholesterol biosynthesis and the LDL receptor

Target Details

	(LDLR) pathway of sterol regulation (PubMed:8402897, PubMed:12177166, PubMed:32322062). {ECO:0000250|UniProtKB:Q9WTN3, ECO:0000269|PubMed:12177166, ECO:0000269|PubMed:32322062, ECO:0000269|PubMed:8402897}., FUNCTION: [Isoform SREBP-1A]: Isoform expressed only in select tissues, which has higher transcriptional activity compared to SREBP-1C (By similarity). Able to stimulate both lipogenic and cholesterogenic gene expression (PubMed:12177166, PubMed:32497488). Has a role in the nutritional regulation of fatty acids and triglycerides in lipogenic organs such as the liver (By similarity). Required for innate immune response in macrophages by regulating lipid metabolism (By similarity). {ECO:0000250|UniProtKB:Q9WTN3, ECO:0000269|PubMed:12177166, ECO:0000269|PubMed:32497488}., FUNCTION: [Isoform SREBP-1C]: Predominant isoform expressed in most tissues, which has weaker transcriptional activity compared to isoform SREBP-1A (By similarity). Primarily controls expression of lipogenic gene (PubMed:12177166). Strongly activates global lipid synthesis in rapidly growing cells (By similarity). {ECO:0000250|UniProtKB:Q9WTN3, ECO:0000269|PubMed:12177166}., FUNCTION: [Isoform SREBP-1aDelta]: The absence of Golgi proteolytic processing requirement makes this isoform constitutively active in transactivation of lipogenic gene promoters. {ECO:0000305|PubMed:7759101}., FUNCTION: [Isoform SREBP-1cDelta]: The absence of Golgi proteolytic processing requirement makes this isoform constitutively active in transactivation of lipogenic gene promoters. {ECO:0000305|PubMed:7759101}.
Molecular Weight:	121.7 kDa
UniProt:	P36956
Pathways:	AMPK Signaling, Caspase Cascade in Apoptosis, Negative Regulation of Hormone Secretion, Regulation of Lipid Metabolism by PPARalpha

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

Application Details

	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)

