

Datasheet for ABIN3096259
UNC13B Protein (AA 1-1591) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	UNC13B
Protein Characteristics:	AA 1-1591
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This UNC13B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSLLCVRVKR AKFQGSPDKF NTYVTLKVQN VKSTTVAVRG DQPSWEQDFM FEISRLDLGL SVEVWNKGLI WDTMVGTVWI ALKTIRQSDE EGPGEWSTLE AETLMKDDEI CGTRNPTPHK ILLDTRFELP FDIPEEEARY WTYKWEQINA LGADNEYSSQ EESQRKPLPT AAAQCSFEDP DSAVDDRDSD YRSETSNSFP PPYHTASQPN ASVHQFPVPV RSPQQLLLQG SSRDSCNDSM QSYDLDYPER RAISPTSSSR YGSSCNVSQG SSQELSELDQY HEQDDDHRET DSIHSCHSSH SLSRDGQAGF GEQEKPLEVT GQAEKEAACE PKEMKEDATT HPPPDVLVLQK DHFLGPQESF PEENASSPFT QARAHWIRAV TKVRLQLQEI PDDGDPSLPQ WLPEGPAGGL YGIDSMPDLR RKKPLPLVSD LSLVQSRKAG ITSAMATRTS LKDEELKSHV YKKTLLQALIY PISCTTPHNF EVWTATTPTY CYECEGLLWG IARQGMRCSE CGVKCHEKCQ DLLNADCLQR AAEKSKKHGA EDRTQNIIMA MKDRMKIRER NKPEIFEVIR DVFTVNKAAH VQQMKTVKQS VLDGTSKWSA KITITVCAQ GLQAKDKTGS SDPYVTQVS KTKKRTKTIF GNLNPVWEEK FHFECHNSSD RIKVRVWDED DDIKSRVKQR LKRESDDFLG QTIIIVRTLK GEMDVWYNLE KRTDKSAVSG
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AIRLQISVEI KGEEKVAPYH VQYTCLHENL FHYLTDIQGS GGVRIPEARQ DDAWKVYFDE
TAQEIVDEFA MRYGIESIQ AMTHFACLSS KYMCPGVPAV MSTLLANINA YYAHTTASTN
VSASDRFAAS NFGKERFVKL LDQLHNSLRI DLSTYRNNFP AGSPERLQDL KSTVDLLTSI
TFFRMKVQEL QSPPRASQVW KDCVKACLNS TYEYIFNNCH DLYSRQYQLK QELPPEEQGP
SIRNLDFWPK LITLIVSIE EDKNSYTPVL NQFPQELNVG KVSAEVMWHL FAQDMKYALE
EHEKDHCKS ADYMNLFHKV KWLHNEYVRD LPVLQGGVPE YPAWFEQFVL QWLDENEDVS
LEFLRGALER DKKDGFQQT EHALFSCSVV DVFTQLNQSF EIIRKLECPD PSILAHYMRR
FAKTIGKVL M QYADILSKDF PAYCTKEKLP CILMNNVQQL RVQLEKMFEA MGGKELDLEA
ADSLKELQVK LNTVLDELSM VFGNSFQVRI DECVRQMADI LGQVRGTGNA SPDARASAAQ
DADSVLRPLM DFLDGNLTLF ATVCEKTVLK RVLKELWRV MNTMERMIVL PPLTDQTGTQ
LIFTAAKELS HSLKLDHVM REETRNLTPK QCAVLDLALD TIKQYFHAGG NGLKKTFLK
SPDLQSLRYA LSLYTQTTDT LIKTFVRSQT TQSGVDDPV GEVSIQVDF THPGTGHEKH
TVKVVAANDL KWQTAGMFRP FVEVTMVGPH QSDKKRKFTT KSKSNNWAPK YNETFHLLG
NEEGPESYEL QICVKDYCFA REDRVLGLAV MPLRDVTAKG SCACWCPLGR KIHMDETGLT
ILRILSQRSN DEVAREFVKL KSESSTEES S

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-

Product Details

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:	UNC13B
Alternative Name:	UNC13B (UNC13B Products)
Background:	Protein unc-13 homolog B (Munc13-2) (munc13),FUNCTION: Plays a role in vesicle maturation during exocytosis as a target of the diacylglycerol second messenger pathway. Is involved in neurotransmitter release by acting in synaptic vesicle priming prior to vesicle fusion and participates in the activity-dependent refilling of readily releasable vesicle pool (RRP) (By similarity). Essential for synaptic vesicle maturation in a subset of excitatory/glutamatergic but not inhibitory/GABA-mediated synapses (By similarity). In collaboration with UNC13A, facilitates neuronal dense core vesicles fusion as well as controls the location and efficiency of their

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	synaptic release (By similarity). {ECO:0000250 UniProtKB:Q9Z1N9}.
Molecular Weight:	180.7 kDa
UniProt:	O14795
Pathways:	Skeletal Muscle Fiber Development , Synaptic Vesicle Exocytosis

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:	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