Datasheet for ABIN3089788

Beclin 1 Protein (AA 1-450) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	Beclin 1 (BECN1)
Protein Characteristics:	AA 1-450
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Beclin 1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MEGSKTSNNS TMQVSFVCQR CSQPLKLDTS FKILDRVTIQ ELTAPLLTTA QAKPGETQEE ETNSGEEPFI ETPRQDGVSR RFIPPARMMS TESANSFTLI GEASDGGTME NLSRRLKVTG DLFDIMSGQT DVDHPLCEEC TDTLLDQLDT QLNVTENECQ NYKRCLEILE QMNEDDSEQL QMELKELALE EERLIQELED VEKNRKIVAE NLEKVQAEAE RLDQEEAQYQ REYSEFKRQQ LELDDELKSV ENQMRYAQTQ LDKLKKTNVF NATFHIWHSG QFGTINNFRL GRLPSVPVEW NEINAAWGQT VLLLHALANK MGLKFQRYRL VPYGNHSYLE SLTDKSKELP LYCSGGLRFF WDNKFDHAMV AFLDCVQQFK EEVEKGETRF CLPYRMDVEK GKIEDTGGSG GSYSIKTQFN SEEQWTKALK FMLTNLKWGL AWVSSQFYNK **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:	Beclin 1 (BECN1)
Alternative Name:	BECN1 (BECN1 Products)
Background:	Beclin-1 (Coiled-coil myosin-like BCL2-interacting protein) (Protein GT197) [Cleaved into: Beclin-1-C 35 kDa, Beclin-1-C 37 kDa],FUNCTION: Plays a central role in autophagy (PubMed:18570871, PubMed:21358617, PubMed:23184933, PubMed:23974797, PubMed:28445460, PubMed:25484083, PubMed:37776275). Acts as a core subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate, different complex forms are believed to play a role in multiple membrane trafficking pathways: PI3KC3-C1 is involved in initiation of autophagosomes and PI3KC3-C2 in maturation of autophagosomes and endocytosis. Involved in regulation of degradative endocytic trafficking and required for the abcission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed:20643123, PubMed:20208530, PubMed:23974797, PubMed:26783301). Essential for the formation of PI3KC3-C2 but not PI3KC3-C1 PI3K complex forms. Involved in endocytosis (PubMed:25275521). Protects against infection by a neurovirulent strain of Sindbis virus (PubMed:9765397). May play a role in antiviral host defense. {ECO:0000269|PubMed:18570871, ECO:0000269|PubMed:20208530, ECO:0000269|PubMed:20643123, ECO:0000269|PubMed:21358617, ECO:0000269|PubMed:23184933, ECO:0000269|PubMed:23974797, ECO:0000269|PubMed:25275521, ECO:0000269|PubMed:25484083, ECO:0000269|PubMed:26783301, ECO:0000269|PubMed:28445460, ECO:0000269|PubMed:37776275, ECO:0000269|PubMed:9765397}., FUNCTION: Beclin-1-C 35 kDa localized to mitochondria can promote apoptosis, it induces the mitochondrial translocation of BAX and the release of proapoptotic factors. {ECO:0000269|PubMed:21364619, ECO:0000269|PubMed:26263979}.
Molecular Weight:	51.9 kDa
UniProt:	Q14457
Pathways:	Autophagy

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	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)