

Datasheet for ABIN3090732

Caldesmon Protein (AA 1-793) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	Caldesmon (CALD1)
Protein Characteristics:	AA 1-793
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Caldesmon protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MDDFERRREL RRQKREEMRL EAERIA YQRN DDDEEEAARE RRRRARQERL RQKQEEESLG QVTDQVEVNA QNSVPDEEAK TTTTNTQVEG DDEAAFLERL ARREERRQKR LQEALERQKE FDPTITDASL SLPSRRMQND TAENETTEKE EKSESRQERY EIEETETVTK SYQKNDWRDA EENKKEDKEK EEEEEKPKR GSIGENQVEV MVEEKTESQ EETVMSLKN GQISSEEPKQ EEEREQGSDE ISHHEKMEEE DKERAAEERA RLEAEERERI KAEQDKKIAD ERARIEAEEK AAAQERERRE AEERERMREE EKRAAEERQR IKKEEKRAAE ERQRIKEEEK RAAEERQRIK EEEKRAAEER QRARAE EEEK AKVEEQKRNK QLEEKHAMQ ETKIKGEKVE QKIEGKWWNE KKAQEDKLQT AVLKKQGEEK GTKVQAKREK LQEDKPTFKK EEIKDEKIKK DKEPKKEEVKS FMDRKKGFTE VKSQNGEFMT HKLKHTENTF SRPGGRASVD TKEAGAPQV EAGKRLEELR RRRGETESEE FEKLKQKQQE AALELEELKK KREERRKVLE EEEQRRKQEE ADRKLREEEE KRRLKEEIER RRAEAAEK RQ KMPEDGLSDD KKPFCFTPK GSSLKIEERA EFLNKS VQKS SGVKSTHQAA IVSKIDSRLE QY TSAIEGTK SAKPTKPAAS DLPVPAEGVR NIKSMWEKGN
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VFSSPTAAGT PNKETAGLVK GVSSRINEWL TKTPDGNKSP APKPSDLRPG DVSSKRNLWE
KQSVDKVTSP TKV

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.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">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:	Caldesmon (CALD1)
Alternative Name:	CALD1 (CALD1 Products)
Background:	Caldesmon (CDM),FUNCTION: Actin- and myosin-binding protein implicated in the regulation of actomyosin interactions in smooth muscle and nonmuscle cells (could act as a bridge between myosin and actin filaments). Stimulates actin binding of tropomyosin which increases the stabilization of actin filament structure. In muscle tissues, inhibits the actomyosin ATPase by binding to F-actin. This inhibition is attenuated by calcium-calmodulin and is potentiated by tropomyosin. Interacts with actin, myosin, two molecules of tropomyosin and with calmodulin. Also plays an essential role during cellular mitosis and receptor capping. Involved in Schwann cell migration during peripheral nerve regeneration (By similarity). {ECO:0000250, ECO:0000269 PubMed:8227296}.
Molecular Weight:	93.2 kDa
UniProt:	Q05682
Pathways:	Myometrial Relaxation and Contraction

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

Application Details

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)

Images



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