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Caldesmon Protein (AA 1-793) (His tag)





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Overview

Quantity:	1 mg
Target:	Caldesmon (CALD1)
Protein Characteristics:	AA 1-793
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Caldesmon protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:

MDDFERREL RRQKREEMRL EAERIAYQRN DDDEEEAARE RRRRARQERL RQKQEEESLG
QVTDQVEVNA QNSVPDEEAK TTTTNTQVEG DDEAAFLERL ARREERRQKR LQEALERQKE
FDPTITDASL SLPSRRMQND TAENETTEKE EKSESRQERY EIEETETVTK SYQKNDWRDA
EENKKEDKEK EEEEEEKPKR GSIGENQVEV MVEEKTTESQ EETVVMSLKN GQISSEEPKQ
EEEREQGSDE ISHHEKMEEE DKERAEAERA RLEAEERERI KAEQDKKIAD ERARIEAEEK
AAAQERERRE AEERERMREE EKRAAEERQR IKEEEKRAAE ERQRIKEEEK RAAEERQRIK
EEEKRAAEER QRARAEEEEK AKVEEQKRNK QLEEKKHAMQ ETKIKGEKVE QKIEGKWVNE
KKAQEDKLQT AVLKKQGEEK GTKVQAKREK LQEDKPTFKK EEIKDEKIKK DKEPKEEVKS
FMDRKKGFTE VKSQNGEFMT HKLKHTENTF SRPGGRASVD TKEAEGAPQV EAGKRLEELR
RRRGETESEE FEKLKQKQQE AALELEELKK KREERRKVLE EEEQRRKQEE ADRKLREEEE
KRRLKEEIER RRAEAAEKRQ KMPEDGLSDD KKPFKCFTPK GSSLKIEERA EFLNKSVQKS
SGVKSTHQAA IVSKIDSRLE QYTSAIEGTK SAKPTKPAAS DLPVPAEGVR NIKSMWEKGN

VFSSPTAAGT PNKETAGLKV GVSSRINEWL TKTPDGNKSP APKPSDLRPG DVSSKRNLWE KQSVDKVTSP TKV

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Human CALD1 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.
- · 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in bacterial culture:

- In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free

Product Details	
Grade:	Crystallography grade
Target Details	
Target:	Caldesmon (CALD1)
Alternative Name:	CALD1 (CALD1 Products)
Background:	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 play 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:	94.2 kDa Including tag.
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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

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

Images

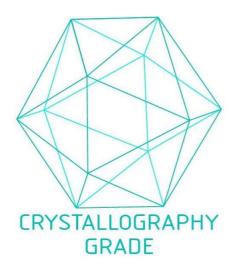


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process