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Datasheet for ABIN3088760

ADCY10 Protein (AA 1-1610) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	ADCY10
Protein Characteristics:	AA 1-1610
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY10 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MNTPKKEEFQD WPIVRIAHL PDLIVYGHFS PERPFMDYFD GVLMFVDISG FTAMTEKFSS
AMYMDRGAEQ LVEILNYHIS AIVEKVLIFG GDILKFAGDA LLALWRVERK QLKNIITVVI
KCSLEIHGLF ETQEWEEGLD IRVKIGLAAG HISMLVFGDE THSHFLVIGQ AVDDVRLAQN
MAQMNDVILS PNCWQLCDRS MIEIESVPDQ RAVKVNFLKP PPNFNFDEFF TKCTTFMHYY
PSGEHKNNLR LACTLKPDPPE LEMSLQKYVM ESILKQIDNK QLQGYLSELR PVTIVFVNLN
FEDQDKAEEI GPAIQDAYMH ITSVLKIFQG QINKVFMFDK GCSFLCVFGF PGEKVPDEL
HALECAMDIF DFCSQVHKIQ TVSIGVASGI VFCGIVGHTV RHEYTVIGQK VNLAARMMMY
YPGIVTCDSV TYNGSNLPAY FFKELPKKVM KGVADSGPLY QYWGRTEKVM FGMACLICNR
KEDYPLLGRN KEINYFMYTM KKFLISNSSQ VLMYEGLPY GKSQILMKIE YLAQGKNHRI
IAISLNKISF HQTFYTIQMF MANVLGLDTC KHYKERQTNL RNKVM TLLDE KFYCLLNDIF
HVQFPISREI SRMSTLKKQK QLEILFMKIL KLIVKEERII FIIDEAQFVD STSWRFMEKL IRTLPIFIIM
SLCPFVNIPC AARAVIKNR NTTYIVIGAV QPNDISNKIC LDLNVSCISK ELDSYLGEES

CGIPFYCEEL LKNLEHHEVL VFQQTESEEK TNRTWNNLFK YSIKLTEKLN MVTLHSDKES
EEVCHLTSGV RLKNLSPPTS LKEISLIQLD SMRLSHQMLV RCAAIGLTF TTELLFEILP
CWNMKMMIKT LATLVESNIF YCFRNGKELQ KALKQNDPSF EVHYRSLSLK PSEGMDHGEE
EQLRELENEV IECHRIRFCN PMMQKTAYEL WLKDQRKAMH LKCARFLEED AHRCDHCRGR
DFIPYHHFTV NIRLNALDMD AIKKMAMSHG FKTEEKLILS NSEIPETSAF FPENRSPEEI
REKILNFFDH VLTkMKTSDE DIIPLESCQC EEILEIVILP LAHHFLALGE NDKALYYFLE IASAYLIFCD
NYMAYMYLNE GQKLLKTLKK DKSWSQTFES ATFYSLKGEV CFNMGQIVLA KKMLRKALKL
LNRIFPYNLI SLFLHIHVEK NRHFHYVNRQ AQESPPPGKK RLAQLYRQTV CLSLLWRIYS
YSYLFHCKYY AHLAVMMQMN TALETQNCFQ IIKAYLDYSL YHHLAGYKGV WFKYEVMAAME
HIFNLPLKGE GIEIVAYVAE TLVFNKLIMG HLDLAIELGS RALQMWALLQ NPNRHYQSLC
RLSRCLLNS RYPQLIQVLG RLWELSVTQE HIFSKAFFYF VCLDILLYSG FVYRTFEECL
EFIHQYENNR ILKFHSGLLL GLYSSVAIWY ARLQEWDFNY KFSNRAKNLL PRRTMTLTYY
DGISRYMEGQ VLHLQKQIKE QSENAQASGE ELLKNLENLV AQNTTGPVFC PRLYHLMAYV
CILMGDQKC GLFLNTALRL SETQGNILEK CWLNMNKESW YSTSELKEDQ WLQTILSLPS
WEKIVAGRVN IQDLQKNKFL MRANTVDNHF

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-

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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®): <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:	ADCY10
Alternative Name:	ADCY10 (ADCY10 Products)
Background:	Adenylate cyclase type 10 (EC 4.6.1.1) (AH-related protein) (Adenylate cyclase homolog) (Germ cell soluble adenylyl cyclase) (hsAC) (sAC) (Testicular soluble adenylyl cyclase),FUNCTION: Catalyzes the formation of the signaling molecule cAMP (PubMed:12609998, PubMed:15659711, PubMed:24616449, PubMed:25040695, PubMed:24567411). May function as sensor that mediates responses to changes in cellular bicarbonate and CO(2) levels (PubMed:15659711, PubMed:17591988). Has a critical role in mammalian spermatogenesis by producing the cAMP which regulates cAMP-responsive nuclear factors indispensable for sperm

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maturation in the epididymis. Induces capacitation, the maturational process that sperm undergo prior to fertilization (By similarity). Involved in ciliary beat regulation (PubMed:17591988). {ECO:0000250|UniProtKB:Q8C0T9, ECO:0000269|PubMed:15659711, ECO:0000269|PubMed:17591988, ECO:0000269|PubMed:24567411, ECO:0000269|PubMed:24616449, ECO:0000269|PubMed:25040695}.

Molecular Weight: 187.1 kDa

UniProt: [Q96PN6](#)

Pathways: [cAMP Metabolic Process](#)

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 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.

Handling

Expiry Date: Unlimited (if stored properly)

Images



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