

Datasheet for ABIN3114449

**ADCY1 Protein (AA 1-1119) (Strep Tag)****1** Image[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	ADCY1
Protein Characteristics:	AA 1-1119
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Sequence:	MAGAPRGGGG GGGGAGEPGG AERAAGTSRR RGLRACDEEF ACPELEALFR GYTLRLEQAA TLKALAVLSL LAGALALAE L GAPGPAPGL AKGSHPVHCV LFLALLVVTN VRSLQVPQLQ QVGQLALLFS LTFALLCCPF ALGGPARGSA GAAGGPATAE QGVWQLLLVT FVSYALLPVR SLLAIGFGLV VAASHLLVTA TLVPAKRPR L WRTLGANALL FVGVMYGVF VRILTERSQR KAFLQARSCI EDRLRLEDEN EKQERLLMSL LPRNVAMEMK EDFLKPPERI FHKIYIQRHD NVSILFADIV GFTGLASQCT AQELVKLLNE LFGKFDELAT ENHCRRIKIL GDCYYCVSGL TQPKTDHAHC CVEMGLDMID TITSVAEATE VDLNMRVGLH TGRVLCGVLG LRKWQYDVWS NDVTLANVME AAGLPGKVHI TKTTLACLNG DYEVEPGYGH ERNSFLKTHN IETFFIVPSH RRKIFPGLIL SDIKPAKRMK FKTVCYLLVQ LMHCRKMFKA EIPFSNVMTC EDDDKRRALR TASEKLRNRS SFSTNVVYTT PGTRVNRYS RLLEARQTEL EMADLNFFTL KYKHVEREQK YHQLQDEYFT SAVVLTILA ALFGLVYLLI FPQSVVLLL LVFCICFLVA CVLYLHITRV QCFPGCLTIQ IRTVLCIFIV VLIYSVAQGC VVGCLPWAWS SKPNSSLVLV SSGGQRTALP
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TLPCESTHHA LLCCLVGTLP LAIFFRVSSL PKMILLSGLT TSYILVLELS GYTRTGGGAV  
SGRSYEPIVA ILLFSCALAL HARQVDIRLR LDYLWAAQAE EEREDMEKVK LDNRRILFNL  
LPAHVAQHFL MSNPRNMDLY YQSYSQVGVM FASIPNFNDF YIELDGNNMG VECLRLLEI  
IADFDELMEK DFYKDIEKIK TIGSTYMAAV GLAPTSGTKA KKSISSHLST LADFAIEMFD  
VLDEINYQSY NDFVLRVGIN VGPVVAGVIG ARRPQYDIWG NTVNVASRMD STGVQGRIQV  
TEEVHRLRR CPYHFVCRGK VSVKKGGEML TYFLEGRTDG NGSQIRSLGL DRKMCPFGRA  
GLQGRPPVC PMPGVSVRAG LPPHSPGQYL PSAAAGKEA

**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:

## Product Details

- 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:	ADCY1
Alternative Name:	ADCY1 ( <a href="#">ADCY1 Products</a> )
Background:	Adenylate cyclase type 1 (EC 4.6.1.1) (ATP pyrophosphate-lyase 1) (Adenylate cyclase type I) (Adenylyl cyclase 1) (Ca(2+)/calmodulin-activated adenylyl cyclase),FUNCTION: Catalyzes the formation of the signaling molecule cAMP in response to G-protein signaling. Mediates responses to increased cellular Ca(2+)/calmodulin levels (By similarity). May be involved in regulatory processes in the central nervous system. May play a role in memory and learning. Plays a role in the regulation of the circadian rhythm of daytime contrast sensitivity probably by modulating the rhythmic synthesis of cyclic AMP in the retina (By similarity). {ECO:0000250 UniProtKB:O88444, ECO:0000250 UniProtKB:P19754}.
Molecular Weight:	123.4 kDa
UniProt:	<a href="#">Q08828</a>
Pathways:	<a href="#">EGFR Signaling Pathway</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Thyroid Hormone Synthesis</a> , <a href="#">cAMP Metabolic Process</a> , <a href="#">Myometrial Relaxation and Contraction</a> , <a href="#">G-protein mediated Events</a> , <a href="#">Interaction of EGFR with phospholipase C-gamma</a>

## 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.
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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>
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Restrictions:	For Research Use only
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## 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