

Datasheet for ABIN3132106

ADCY1 Protein (AA 1-1118) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ADCY1
Protein Characteristics:	AA 1-1118
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MAGAPRGQGG GGGAGEPGGA ERAAGPGGRR GFRACGEEFA CPELEALFRG YTLRLEQAAT</p> <p>LKALAVLSLL AGALALAE LL GAPGPAPGLA KGSHPVHCIL FLALFVVTNV RSLQVSQLQQ</p> <p>VGQLALFFSL TFALLCCPFA LGGPARSSAG GAMGSTVAEQ GVWQLLLVTF VSYALLPVRS</p> <p>LLAIGFGLVV AASHLLVTAA LVPAKRPRWL RTLGANALLF FGVNMYGVFV RILTERSQRK</p> <p>AFLQARNCIE DRLRLEDENE KQERLLMSLL PRNVAMEMKE DFLKPPERIF HKIYIQRHDN</p> <p>VSILFADIVG FTGLASQCTA QELVKLLNEL FGKFD ELATE NHCRRILK DCYYCVSGLT</p> <p>QPKTDHAHCC VEMGLDMIDT ITSVAEATEV DLNMRVGLHT GRVLCGVLGL RKWQYDVWSN</p> <p>DVTLANVMEA AGLPGKVHIT KTTLACLNGD YEVEPGHGHE RNTFLRTHNI ETFFIVPSHR</p> <p>RKIFPGLILS DIKPAKRMKF KTVCYLLVQL MHCRKMFKAE IPFSNVMTC EDDKRRALRT</p> <p>ASEKLNRNSS FSTNVVY TTP GTRVNR YISR LLEARQTELE MADLNFFTLK YKHVEREQKY</p> <p>HQLQDEYFTS AVVLALILAA LFGLIYLLVI PQSVAVLLLL VFSICFLVAC TLYLHITRVQ CFPGCLTIQI</p>

RTALCVFIVV LIYSVAQGCV VGCLPWAWS QSNSSLVLA AGGRRTVLPALPCESAHHAL
LCCLVGTLPALIFLRVSSLP KMILLSGLTT SYILVLELSG YTKVGGGALS GRSYEPIMAI
LLFSCTLALH ARQVDVRLRL DYLVAAQAEE ERDDMERVKL DNKRILFNLL PAHVAQHFLM
SNPRNMDLYY QSYSQVGVMF ASIPNFNDFY IELDGNNMGV ECLRLLEII ADFDELMDKD
FYKDLEIKIT IGSTYMAAVG LAPTAGTRAK KSISSHLCTL ADFAIMFDV LDEINYQSYN
DFVLRVGINV GPVVAGVIGA RRPQYDIWGN TVNVASRMDS TGVQGRIQVT EEVHRLKRC
SYQFVCRGKV SVKKGGEMLT YFLEGRTDGN SSHGRTRLE RRMCPYGRGG GQARRPPLCP
AAGPPVRPGL PPAPTSQYLS STAAGKEA

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: ADCY1

Alternative Name: Adcy1 ([ADCY1 Products](#))

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 (PubMed:9662407, PubMed:7816821). May be involved in regulatory processes in the central nervous system (PubMed:9662407). May play a role in memory and learning (PubMed:7816821). 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 (PubMed:24048828). {ECO:0000269|PubMed:24048828, ECO:0000269|PubMed:7816821, ECO:0000269|PubMed:9662407}.

Molecular Weight: 123.4 kDa

UniProt: [O88444](#)

Pathways: [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Thyroid Hormone Synthesis](#), [cAMP Metabolic Process](#), [Myometrial Relaxation and Contraction](#), [G-protein mediated Events](#), [Interaction of EGFR with phospholipase C-gamma](#)

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.

Application Details

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:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months