

Datasheet for ABIN3134718

ADCY8 Protein (AA 1-1249) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ADCY8
Protein Characteristics:	AA 1-1249
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY8 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MELSDVHCLS GSEELYTIQP TPPAGDDGSG SRPQRLLWQT AVRHITEQRF IHGHRGGGGG</p> <p>GVSRKASNPA GSGPNHHAPQ LSSDSVLPLY SLGPGERAHN TGGTKVFPER SGSGSASGSG</p> <p>GGGDLGFLHL DCAPSNSDFF LGGYSYRGV IFPTLRNSFK SRDLERLYQR YFLGQRRKSE</p> <p>VVMNVLDVLT KLTLVLHLS LASAPMDPLK GILLGFFTGI EVVICALVVV RKDNTSHTYL</p> <p>QYSGVVTWVA MTTQILAAGL GYGLLDGIG YVLFTLFATY SMLPLPLTWA ILAGLGTSLL</p> <p>QVTLQVLIPR LAVFSINQVL AQVVLFCMN TAGIFISYLS DRAQRQAFLE TRRCVEARLR</p> <p>LETENQRQER LVLSVLPRFV VLEMINDMTN VEDEHLQHGF HRIYIHRYEN VSILFADVKG</p> <p>FTNLSTTLA QELVRMLNEL FARFDRLAHE HHCLRIKILG DCYYCVSGLP EPRRDHAHCC</p> <p>VEMGLSMIKT IRFVRSRTKH DVDMRIGIHS GSVLCGVLGL RKWQFDVWSW DVDIANKLES</p> <p>GGIPGRIHIS KATLDCLNGD YNVEEGHGKE RNEFLRKHNI ETYLIKQPEE SLLCLPEDIV</p> <p>KESVSCSDRR NSGATFTEGS WSPELPFDNI VGKQNTLAAL TRNSINLLPN HLAQALHVQS</p>

GPEEINKRIE HTIDLRSGDK LRREHIKPFS LMFKDSSLEH KYSQMRDEVF KSNLVCAFIV
LLFITAIQSL LPSSRLMPMT IQFSILIMLH SALVLITTAE DYKCLPLILR KTCCWINETY LARNVIIFAS
ILINFLGAVL NILWCDFDKS IPLKNLTFNS SAVFTDICSY PEYFVFTGVL AMVTCAVFLR
LNSVLKLAVL LIMIAIYALL TETIYAGLFL SYDNLNHSGE DFLGTKEASL LLMAMFLLAV
FYHGQQLEYT ARLDFLWRVQ AKEEINEMKE LREHNENMLR NILPSHVARH FLEKDRDNEE
LYSQSYDAVG VMFASIPGFA DFYSQTEMNN QGVECLRLLN EIIADFDELL GEDRFQDIEK
IKTIGSTYMA VSGLSPEKQQ CEDKWGHLCA LADFSALTE SIQEINKHSF NNFELRIGIS
HGSVVAGVIG AKKPQYDIWG KTVNLASRMD STGVSGRIQV PEETYLILKD QGFAFDYRGE
IYVKGISEQE GKIPTYFLLG RVQPNPFILP PRRLPGQYSL AAVVLGLVQS LNRQRQKQLL
NENSNNGIIK SHYNRRTLT PSGPEPGAQA EGTKSDLP

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:

- 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:	ADCY8
Alternative Name:	Adcy8 (ADCY8 Products)
Background:	<p>Adenylate cyclase type 8 (EC 4.6.1.1) (ATP pyrophosphate-lyase 8) (Adenylate cyclase type VIII) (Adenylyl cyclase 8) (Ca(2+)/calmodulin-activated adenylyl cyclase),FUNCTION: Catalyzes the formation of cAMP in response to calcium entry leadings to cAMP signaling activation that affect processes suche as synaptic plasticity and insulin secretion (PubMed:10864938, PubMed:25403481, PubMed:10482244, PubMed:14585998, PubMed:18448650). Plays a role in many brain functions, such as learning, memory, drug addiction, and anxiety modulation through regulation of synaptic plasticity by modulating long-term memory and long-term potentiation (LTP) through CREB transcription factor activity modulation (PubMed:10482244, PubMed:14585998, PubMed:18448650, PubMed:10864938, PubMed:12441059, PubMed:20638449, PubMed:27234425, PubMed:18222416). Plays a central role in insulin secretion by controlling glucose homeostasis through glucagon-like peptide 1 and glucose signaling pathway and maintains insulin secretion through calcium-dependent PKA activation leading to vesicle pool replenishment (PubMed:25403481). Also, allows PTGER3 to induce potentiation of PTGER4-mediated PLA2 secretion by switching from a negative to a positive regulation, during the IL1B induced-dedifferentiation of smooth muscle cells (By similarity). {ECO:0000250 UniProtKB:P40146, ECO:0000269 PubMed:10482244, ECO:0000269 PubMed:10864938, ECO:0000269 PubMed:12441059, ECO:0000269 PubMed:14585998, ECO:0000269 PubMed:18222416, ECO:0000269 PubMed:18448650, ECO:0000269 PubMed:20638449, ECO:0000269 PubMed:25403481, ECO:0000269 PubMed:27234425}.</p>

Target Details

Molecular Weight:	140.1 kDa
UniProt:	P97490
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.
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>
Restrictions:	For Research Use only

Handling

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