

Datasheet for ABIN3113544

ADCY8 Protein (AA 1-1251) (Strep Tag)**1** Image[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	ADCY8
Protein Characteristics:	AA 1-1251
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY8 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MELSDVRCLT GSEELYTIHP TPPAGDGRSA SRPQRLWQT AVRHITEQRF IHGHRGGSGS GSGGSGKASD PAGGGPNHHA PQLSGDSALP LYSLGPGERA HSTCGTKVFP ERSGSGSASG SGGGGDLGFL HLDCAPSNSD FFLNGGYSYR GVIFPTLRNS FKSRDLERLY QRYFLGQRRK SEVVMNVLDV LTKLTLLVLH LSLASAPMDP LKGILLGFFT GIEVVICALV VVRKDTTSHT YLQYSGVVTW VAMTTQILAA GLGYGLLDG IGYVFTLFA TYSMLPLPLT WAILAGLGTS LLQVILQVVI PRLAVISINQ VVAQAVLFMC MNTAGIFISY LSDRAQRQAF LETRCVEAR LRLETENQRQ ERLVLSVLPR FVVLEMINDM TNVEDEHLQH QFHRIYHRY ENVSILFADV KGFTNLSTTL SAQELVRMLN ELFARFDRLA HEHHCLRIKI LGDCYYCVSG LPEPRQDHAH CCVEMGLSMI KTIRYVRSRT KHDVDMRIGI HSGSVLCGVL GLRKWQFDVW SWDVDIANKL ESGGIPGRIH ISKATLDCLN GDYNVEEGHG KERNEFLRKH NIETYLIKQP EDSLLSLPED IVKESVSSSD RRNSGATFTE GSWPELPFD NIVGKQNTLA ALTRNSINLL PNHLAQALHV QSGPEEINKR IEHTIDLRSG DKLRREHIKP FSLMFKDSSL EHKYSQMRDE VFKSNLVCAF
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IVLLFITAIQ SLLPSSRVMP MTIQFSILIM LHSALVLITT AEDYKCLPLI LRKTCCWINE TYLARNVIIF
ASILINFLGA ILNILWCDFD KSIPLKNLTF NSSAVFTDIC SYPEYFVFTG VLAMVTCAVF
LRLNSVLKLA VLLIMIAIYA LLTETVYAGL FLRYDNLNHS GEDFLGTKEV SLLLMAMFLL
AVFYHGQQL EYTARLDFLWR VQAKEEINEM KELREHNENM LRNLP SHVA RHFLEKDRDN
EELYSQSYDA VGVMFASIPG FADFYSQTEM NNQGV ECLRL LNEIADFDE LLGEDRFQDI
EKIKTIGSTY MAVSGLSPEK QQCEDKWGHL CALADFSLAL TESIQEINKH SFNNFELRIG
ISHGSVVAGV IGAKKPQYDI WGKTVNLASR MDSTGVSGRI QVPEETYLL KDGQFAFDYR
GEIYVKGISE QEGKIKTYFL LGRVQPNPFI LPPRRLPGQY SLAAVVLGLV QSLNRQRQKQ
LLNENNTGI IKGHYNRRTL LSPSGTEPGA QAEGTDKSDL P

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!

Product Details

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®): 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:	ADCY8
Alternative Name:	ADCY8 (ADCY8 Products)
Background:	Adenylate cyclase type 8 (EC 4.6.1.1) (ATP pyrophosphate-lyase 8) (Adenylate cyclase type VIII) (Adenylyl cyclase 8) (AC8) (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. 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. 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. 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. {ECO:0000250 UniProtKB:P40146}.

Target Details

Molecular Weight:	140.1 kDa
UniProt:	P40145
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. 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