

Datasheet for ABIN3113861

ADCY7 Protein (AA 1-1080) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	ADCY7 (Adcy7)
Protein Characteristics:	AA 1-1080
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY7 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MPAKGRYFLN EGEEGPDQDA LYEKYQLTSQ HGPLLLTLLL VAATACVALI IIAFSQGDPS RHQAILGMAF LVLAVFAALS VLMYVECLLR RWLRALALLT WACLVALGYV LVFDAWTKAA CAWEQVPFFL FIVFVYTLL PFSMRGAVAV GAVSTASHLL VLGSLMGGFT TPSVRVGLQL LANAVIFLCG NLTGAFHKHQ MQDASRDFT YTVKCIQIRR KLRIEKRQQE NLLLSVLP AH ISMGMKLAII ERLKEHGDRR CMPDNNFHSL YVKRHQNVSI LYADIVGFTQ LASDCSPKEL VVVLNELFGK FDQIAKANEC MRIKILGDCY YCVSGLPVSL PTHARNCVKM GLDMCQAIKQ VREATGVDIN MRVGIHSGNV LCGVIGLRKW QYDVVSHDVS LANRMEAAGV PGRVHITEAT LKHLDKAYEV EDGHGQQRDP YLKEMNIRTY LVIDPRSQQP PPPSQHLPRP KGDAALKMRA SVRMTRYLES WGAARPFAHL NHRESVSSGE THVPNGRRPK SVPQRHRRTP DRSMSPKGRS EDDSYDDEML SAIEGLSSTR PCCSKSDDFY TFGSIFLEKG FERERYLAPI PRARHDFACA SLIFVCILLV HVLLMPRTAA LGVSFGLVAC VLGLVLGLCF ATKFSRCCPA RGTLC TISER VETQPLLRLT LAVLTIGSLL TVAIINLPLM PFQVPELPVG NETGLLAASS KTRALCEPLP
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YYTCSCVLGF IACSVFLRMS LEPKVLLTV ALVAYLVLFN LSPCWQWDCC GQGLGNLTKP
NGTTSGTPSC SWKDLKMTN FYLVLFYITL LTLRQIDYY CRLDCLWKKK FKKEHEEFET
MENVNRLLE NVLPAHVAAH FIGDKLNEDW YHQS YDCVCV MFASVPDFKV FYTECDVNKE
GLECLRLLNE IADFDELLL KPKFSGVEKI KTIGSTYMAA AGLSVASGHE NQELERQHAH
IGVMVEFSIA LMSKLDGINR HSFNSFRLRV GINHGPVIAG VIGARKPQYD IWGNTVNVAS
RMESTGELGK IQVTEETCTI LQQLGYSCEC RGLINVKGKG ELRTYFVCTD TAKFQGLGLN

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:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.

Product Details

- 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:	ADCY7 (Adcy7)
Alternative Name:	ADCY7 (Adcy7 Products)
Background:	Adenylate cyclase type 7 (EC 4.6.1.1) (ATP pyrophosphate-lyase 7) (Adenylate cyclase type VII) (Adenyl cyclase 7),FUNCTION: Catalyzes the formation of cAMP in response to activation of G protein-coupled receptors (Probable). Functions in signaling cascades activated namely by thrombin and sphingosine 1-phosphate and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G alpha protein with GNA13 (PubMed:23229509, PubMed:18541530). Also, during inflammation, mediates zymosan-induced increase intracellular cAMP, leading to protein kinase A pathway activation in order to modulate innate immune responses through heterotrimeric G proteins G(12/13) (By similarity). Functions in signaling cascades activated namely by dopamine and C5 alpha chain and mediates regulation of cAMP synthesis through synergistic action of the stimulatory G protein with G beta:gamma complex (PubMed:23842570, PubMed:23229509). Functions, through cAMP response regulation, to keep inflammation under control during bacterial infection by sensing the presence of serum factors, such as the bioactive lysophospholipid (LPA) that regulate LPS-induced TNF-alpha production. However, it is also required for the optimal functions of B and T cells during adaptive immune responses by regulating cAMP synthesis in both B and T cells (By similarity). {ECO:0000250 UniProtKB:P51829, ECO:0000269 PubMed:18541530,

Target Details

	ECO:0000269 PubMed:23229509, ECO:0000269 PubMed:23842570, ECO:0000305 PubMed:18541530, ECO:0000305 PubMed:23229509}.
Molecular Weight:	120.3 kDa
UniProt:	P51828
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.

Handling

Expiry Date: Unlimited (if stored properly)

Images



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