

Datasheet for ABIN3114440

## ADCY2 Protein (AA 1-1091) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	ADCY2
Protein Characteristics:	AA 1-1091
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MWQEAMRRRR YLRDRSEEEA GGGDGLPRSR DWLYESYYCM SQQHPLIVFL LLIVMGSCLA</p> <p>LLAVFFALGL EVEDHVAFLI TVPTALAIFF AIFILVCIES VFKKLLRLFS LVIWICLVAM GYLFCMCFGGT</p> <p>VSPWDQVSFF LFIIFVYYTM LPFNMRDAII ASVLTSSSHT IVLSVCLSAT PGGKEHLVWQ</p> <p>ILANVIIFIC GNLAGAYHKH LMELALQQTY QDTCNCIKSR IKLEFEKRQQ ERLLSLLPA</p> <p>HIAMEMKAEI IQRLQGPKAG QMENTNNFHN LYVKRHTNVS ILYADIVGFT RLASDCSPGE</p> <p>LVHMLNELFG KFDQIAKENE CMRIKILGDC YYCVSGLPIS LPNHAKNCVK MGLDMCEAIK</p> <p>KVRDATGVDI NMRVGVHSGN VLCGVIGLQK WQYDVWSDHV TLANHMEAGG VPGRVHISSV</p> <p>TLEHLNGAYK VEEGDGDIRD PYLKQHLVKT YFVINPKGER RSPQHLEFRPR HTLDGAKMRA</p> <p>SVRMTRYLES WGAAPFAHL HHRDSMTTEN GKISTTDVPM GQHNFNQRTL RTKSQKKRFE</p> <p>EELNERMIQA IDGINAQKQW LKSEDIQRIS LLFYNKVLEK EYRATALPAF KYYVTCACLI FFCIFIVQIL</p> <p>VLPKTSVLGI SFGAAFLLLA FILFVCFAGQ LLQCSKKASP LLMWLLKSSG IIANRPWPRI SLTIITTAII</p>

LMMAVFNMFF LSDSEETIPP TANTTNTSFS ASNNQVAILR AQLNFFLPYF IYSCILGLIS  
CSVFLRVNYE LKMLIMMVAL VGYNTILLHT HAHVLGDYSQ VLFERPGIWK DLKTMGSVSL  
SIFFITLLVL GRQNEYCYRL DFLWKNKFKK EREEIETMEN LNRVLLENVL PAHVAEHFLA  
RSLKNEELYH QSYDCVCVMF ASIPDFKEFY TESDVNKEGL ECLRLLENI ADFDDLSSKP  
KFSGVEKIKT IGSTYMAATG LSAVPSQEHS QEPERQYMHI GTMVEFAFAL VGKLDANKH  
SFNDFKLRVG INHGPVIAGV IGAQKPQYDI WGNTVNVASR MDSTGVLDKI QVTEETSLVL  
QTLGYTCTCR GIINVKGKGD LKTYFVNTEM SRSLSQSNVA S

**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.**

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### 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.

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- 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:	ADCY2
Alternative Name:	ADCY2 ( <a href="#">ADCY2 Products</a> )
Background:	Adenylate cyclase type 2 (EC 4.6.1.1) (ATP pyrophosphate-lyase 2) (Adenylate cyclase type II) (Adenylyl cyclase 2),FUNCTION: Catalyzes the formation of the signaling molecule cAMP in response to G-protein signaling (PubMed:15385642). Down-stream signaling cascades mediate changes in gene expression patterns and lead to increased IL6 production. Functions in signaling cascades downstream of the muscarinic acetylcholine receptors (By similarity). {ECO:0000250 UniProtKB:P26769, ECO:0000269 PubMed:15385642}.
Molecular Weight:	123.6 kDa
UniProt:	<a href="#">Q08462</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.
Comment:	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.  During lysate production, the cell wall and other cellular components that are not required for

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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