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Datasheet for ABIN3110015

ADCY6 Protein (AA 1-1168) (Strep Tag)

Overview

Quantity:	250 µg
Target:	ADCY6
Protein Characteristics:	AA 1-1168
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADCY6 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MSWFSGLLVP KVDERKTAWG ERNGQKRSRR RGTRAGGFCT PRYMSCLRDA EPPSPTPAGP PRCPWQDDAF IRRGGPGK GK ELGLRAVALG FEDTEVTTTA GGTAEVAPDA VPRSGRSCWR RLVQVFQSKQ FRSAKLERLY QRYFFQMNQS SLTLLMAVLV LLTAVLLAFH AAPARPQPAY VALLACAAAL FVGLMVVCNR HSFQRQDSMWV VSYVVLGILA AVQVGGALAA DPRSPSAGLW CPVFFVYIAY TLLPIRMRAA VLSGLGLSTL HLILAWQLNR GDAFLWKQLG ANVLLFLCTN VIGICTHYPA EVSQRQAFQE TRGYIQARLH LQHENRQQR LLSVLPQHV AMEMKEDINT KKEDMMFHKI YIQKHDNCSI LFADIEGFTS LASQCTAQEL VMTLNELFAR FDKLAAENHC LRIKILGDCY YCVSGLPEAR ADHAHCCVEM GVDMIEAISL VREVTGVNVN MRVGIHSGRV HCGVLGLRKW QFDVWSNDVT LANHMEAGGR AGRIHITRAT LQYLNGDYEV EPGRGGERNA YLKEQHITF LILGASQKRK EEKAMLAKLQ RTRANSMEGL MPRWVPDRAF SRTKDSKAFR QMGIDDSSKD NRGTQDALNP EDEVDEFSLR AIDARSIDQL RKDHVRRFLL TFQREDLEKK

YSRKVDPRFG AYWACALLVF CFICFIQLLI FPHSTLMLGI YASIFLLLLL TVLICAVYSC GSLFPKALQR
LSRSIVRSRA HSTAVGIFSV LLVFTSAIAN MFTCNHTPIR SCAARMLNLT PADITACHLQ
QLNYSLGLDA PLCEGTMPTC SFPEYFIGNM LLSLLASSVF LHISSIGKLA MIFVLGLIYL
VLLLLGPPAT IFDNYDLLG VHGLASSNET FDGLDCPAAG RVALKYMTPV ILLVFALALY
LHAQQVESTA RLDFLWKLQA TGEKEEMEEL QAYNRLLHN ILPKDVAHF LARERRNDEL
YYQSCECVAV MFASIANFSE FYVELEANNE GVECLRLLNE IADFDEIIS EERFRQLEKI
KTIGSTYMAA SGLNASTYDQ VGRSHITALA DYAMRLMEQM KHINEHSFNN FQMKIGLNMG
PVVAGVIGAR KPQYDIWGNT VNVSSRMDST GVPDRIQVTT DLYQVLAAGK YQLECRGVVK
VKGKGEMTTY FLNGGPSS

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!

Product Details

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: ADCY6

Alternative Name: ADCY6 ([ADCY6 Products](#))

Background: Adenylate cyclase type 6 (EC 4.6.1.1) (ATP pyrophosphate-lyase 6) (Adenylate cyclase type VI) (Adenylyl cyclase 6) (Ca(2+)-inhibitable adenylyl cyclase),FUNCTION: Catalyzes the formation of the signaling molecule cAMP downstream of G protein-coupled receptors (PubMed:17916776, PubMed:17110384). Functions in signaling cascades downstream of beta-adrenergic receptors in the heart and in vascular smooth muscle cells (PubMed:17916776). Functions in signaling cascades downstream of the vasopressin receptor in the kidney and has a role in renal water reabsorption. Functions in signaling cascades downstream of PTH1R and plays a role in regulating renal phosphate excretion. Functions in signaling cascades downstream of the VIP and SCT receptors in pancreas and contributes to the regulation of pancreatic amylase and fluid secretion (By similarity). Signaling mediates cAMP-dependent activation of protein kinase PKA. This promotes increased phosphorylation of various proteins, including AKT. Plays a role in regulating cardiac sarcoplasmic reticulum Ca(2+) uptake and storage, and is required for normal heart ventricular contractibility. May contribute to normal heart function (By similarity). Mediates vasodilatation after activation of beta-adrenergic receptors by isoproterenol (PubMed:17916776). Contributes to bone cell responses to mechanical stimuli (By similarity). {ECO:0000250|UniProtKB:Q01341, ECO:0000250|UniProtKB:Q03343, ECO:0000269|PubMed:17110384, ECO:0000269|PubMed:17916776}.

Molecular Weight: 130.6 kDa

UniProt: [O43306](#)

Pathways: [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Thyroid Hormone Synthesis](#), [cAMP](#)

Target Details

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: 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!

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