

Datasheet for ABIN3114834

PDE3A Protein (AA 1-1141) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	PDE3A
Protein Characteristics:	AA 1-1141
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDE3A protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MAVPGDAARV RDKPVHSGVS QAPTAGRDCH HRADPASPRD SGCRGCWGD LVLQPLRSSRK LSSALCAGSL SFL LALLVRL VRGEVGC DLE QCKEAAAAEE EEAAPGAEGG VFP GPRGGAP GGGARLSPWL QPSALLFSL CAFFWMGLYL LRAGVRLPLA VALLAACCGG EALVQIGLGV GEDHLLSLPA AGVVLSC LA A TWLVLRRL GVLMIALTSA VRTVSLISLE RFKVAWRPYL AYLAGVLGIL LARYVEQILP QSAEAAPREH LGSQLIAGTK EDIPVFKRRR RSSSVVSAEM SGCSSKSHRR TSLPCIPREQ LMGHSEWDHK RGPRGSQSSG TSITVDIAVM GEAHGLITDL LADPSLPPNV CTS LR AVSNL LSTQLTFQAI HKPRVNPVTS LSEN YTCSDS EESSEKDKLA IPKRLRRSLP PGLLRVSST WTTTTSATGL PTLEPAPVRR DRSTSIKLQE APSSSPDSWN NPVMMTLTKS RSFTSSY AIS A ANHVKAKKQ SRPGALAKIS PLSSPCSSPL QGTPASSLVS KISAVQFPES ADTTAKQSLG SHRALTYTQS APDLSPQILT PPVICSSCGR PYSQGNPADE PLERSGVATR TPSRTDDTAQ VTSDYETNNN SDSSDIVQNE DETECLREPL RKASACSTYA

PETMMFLDKP ILAPEPLVMD NLDSIMEQLN TWNFPIFDLV ENIGRKCGRI LSQVSYRLFE
DMGLFEAFKI PIREFMNYFH ALEIGYRDIP YHNRIHATDV LHAVWYLTTQ PIPGLSTVIN
DHGSTSDSDS DSGFTHGHMG YVFSKTYNVT DDKYGCLSGN IPALELMALY VAAAMHDYDH
PGRTNAFLVA TSAPQAVLYN DRSVLENHHA AAAWNLFMSR PEYNFLINLD HVEFKHFRFL
VIEAILATDL KKHFDVAKF NGKVNDDVGI DWTNENDRLL VCQMCIKLAD INGPAKCKEL
HLQWTDGIVN EFYEQGDEEA SLGLPISPFM DRSAQLANL QESFISHIVG PLCNSYDSAG
LMPGKWVEDS DESGDTDDPE EEEEEAPAPN EEETCENNES PKKKTFRKRK IYCQITQHLL
QNHKMWKKVI EEEQRLAGIE NQSLDQTPQS HSSEIQIAIK EEEEEKGKPR GEEIPTQKPD Q

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:

Product Details

- 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: PDE3A

Alternative Name: PDE3A ([PDE3A Products](#))

Background: CGMP-inhibited 3',5'-cyclic phosphodiesterase 3A (EC 3.1.4.17) (Cyclic GMP-inhibited phosphodiesterase A) (CGI-PDE A) (cGMP-inhibited cAMP phosphodiesterase) (cGI-PDE),FUNCTION: Cyclic nucleotide phosphodiesterase with specificity for the second messengers cAMP and cGMP, which are key regulators of many important physiological processes (PubMed:1315035, PubMed:8695850, PubMed:8155697, PubMed:25961942). Has also activity toward cUMP (PubMed:27975297). Independently of its catalytic activity it is part of an E2/17beta-estradiol-induced pro-apoptotic signaling pathway. E2 stabilizes the PDE3A/SLFN12 complex in the cytosol, promoting the dephosphorylation of SLFN12 and activating its pro-apoptotic ribosomal RNA/rRNA ribonuclease activity. This apoptotic pathway might be relevant in tissues with high concentration of E2 and be for instance involved in placenta remodeling (PubMed:31420216, PubMed:34707099).
{ECO:0000269|PubMed:1315035, ECO:0000269|PubMed:25961942, ECO:0000269|PubMed:27975297, ECO:0000269|PubMed:31420216, ECO:0000269|PubMed:34707099, ECO:0000269|PubMed:8155697, ECO:0000269|PubMed:8695850}.

Molecular Weight: 125.0 kDa

UniProt: [Q14432](#)

Pathways: [cAMP Metabolic Process](#)

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