

Datasheet for ABIN3132062

PDE9A Protein (AA 1-534) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	PDE9A
Protein Characteristics:	AA 1-534
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDE9A protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MGAGSSSYRP KAIYLDIDGR IQKVFSKYC NSSDIMDLFC IATGLPRNTT ISLLTTDDAM</p> <p>VSIDPTMPAN SERTPYKVRP VAVKQVSERE ELIQGVLAQV AEQFSRAFKI NELKAEVANH</p> <p>LAVLEKRVEL EGLKVVEIEK CKSDIKKMRE ELAARNSRTN CPCKYSFLDN KKLTPRRDVP</p> <p>TYPKYLLSPE TIEALRKPTF DVWLWEPNEM LSCLEHMYHD LGLVRDFSIN PITLRRWLLC</p> <p>VHDNYRNNPF HNFRHCFCVT QMMYSMVWLC GLQEKFSQMD ILVLMTAAIC HDLDHPGYNN</p> <p>TYQINARTEL AVRYNDISPL ENHHCAIAFQ ILARPECNIF ASVPPEGFRQ IRQGMITLIL</p> <p>ATDMARHAEI MDSFKEKMEN FDYSNEEHLT LLKMILIKCC DISNEVRPME VAEPWVDCLL</p> <p>EEYFMQSDRE KSEGLPVAPF MDRDKVTAT AQIGFIKVL IPMFETVTKL FPVVEETMLR</p> <p>PLWESREHYE ELKQLDDAMK ELQKKTESLT SGAPENTTEK NRDAKDSEGH SPPN</p> <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</p>

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:

- 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:	PDE9A
Alternative Name:	Pde9a (PDE9A Products)
Background:	<p>High affinity cGMP-specific 3',5'-cyclic phosphodiesterase 9A (EC 3.1.4.35),FUNCTION: Specifically hydrolyzes the second messenger cGMP, which is a key regulator of many important physiological processes (PubMed:9624145). Highly specific: compared to other members of the cyclic nucleotide phosphodiesterase family, has the highest affinity and selectivity for cGMP. Specifically regulates natriuretic-peptide-dependent cGMP signaling in heart, acting as a regulator of cardiac hypertrophy in myocytes and muscle. Does not regulate nitric oxide-dependent cGMP in heart (PubMed:25799991). Additional experiments are required to confirm whether its ability to hydrolyze natriuretic-peptide-dependent cGMP is specific to heart or is a general feature of the protein (Probable). In brain, involved in cognitive function, such as learning and long-term memory (PubMed:22328573, PubMed:24746365).</p> <p>{ECO:0000269 PubMed:22328573, ECO:0000269 PubMed:24746365, ECO:0000269 PubMed:25799991, ECO:0000269 PubMed:9624145, ECO:0000305}.</p>
Molecular Weight:	61.6 kDa
UniProt:	070628

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. 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