

Datasheet for ABIN3127641

Adenylate Kinase 5 Protein (AK5) (AA 1-562) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	Adenylate Kinase 5 (AK5)
Protein Characteristics:	AA 1-562
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Adenylate Kinase 5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MNTNDAKEYL ARRDIPQLFE SLLNGLMCSK PEDPIEYLET CLQVKELGG CDKVKWDTFV</p> <p>SQEKKTLPPL NGGQSRRSFL RNVMPENS NF PYRRYDRLPP IHQFSIESDT DLSETAELIE</p> <p>EYEVFDPTRP RPKIILVIGG PGSGKGTQSL KIAERYGFQY ISVGELLRKK IHSASSNRKW</p> <p>SLIAKIITNG ELAPQETTIT EIKQKLMQIP DEEGIVIDGF PRDVAQALSF EDQICTPDLV VFLACANQRL</p> <p>KERLQKRAEQ QGRPDDNLKA TQRRLVNFKQ NAAPLVKYFQ EKGLIVTFDA DRDEDVAFHD</p> <p>ISVAVDSKLF PNKEAPMDSS DLDPSMMFDA GEIIDTGS DY DNQDDDQLNV FGEDTEGGFM</p> <p>EDLRKCKIIF LMGGPGSGKG TQCEKLAEKY GFTHLSTGEL LRQELTSESE RSKLIRDIME</p> <p>RGDLVPSGVV LELLKEAMVA SLGNTKGFLI DGYPREVKQG EEFGRRIGDP HLVICMDCSA</p> <p>DTMTNRLLQR SQSSQRGEDG AKSIKRLEA YHRASIPVVT YYERKTQLRK VNAEGTPEQV</p> <p>FLQLCTAIDS VF</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 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:	Adenylate Kinase 5 (AK5)
Alternative Name:	Ak5 (AK5 Products)
Background:	<p>Adenylate kinase isoenzyme 5 (AK 5) (EC 2.7.4.3) (EC 2.7.4.6) (ATP-AMP transphosphorylase 5),FUNCTION: Nucleoside monophosphate (NMP) kinase that catalyzes the reversible transfer of the terminal phosphate group between nucleoside triphosphates and monophosphates. Active on AMP and dAMP with ATP as a donor. When GTP is used as phosphate donor, the enzyme phosphorylates AMP, CMP, and to a small extent dCMP. Also displays broad nucleoside diphosphate kinase activity. {ECO:0000250 UniProtKB:Q9Y6K8}.</p>
Molecular Weight:	63.3 kDa
UniProt:	Q920P5
Pathways:	Nucleotide Phosphorylation , Ribonucleoside Biosynthetic 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:	<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:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>

Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	12 months
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