

Datasheet for ABIN3137340

## POLK Protein (AA 1-852) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	POLK
Protein Characteristics:	AA 1-852
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLK protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MDNTKEKDNF KDDLRLMGL NDNKAGMEGL DKEKINKIIM EATKGSRYFG NELKKEKQVN</p> <p>QRIENMMQKQ AQITSQQLRK AQLQVDKFAM ELERNRNLNN TIVHVDMDAF YAAVEMRDNP</p> <p>ELKDKPIAVG SMSMLATSNY HARFVGVRRA MPGFIAKRLC PQLIIVPPNF DKYRAVSKEV</p> <p>KEILAEYDPN FMAMSLDEAY LNITQHLQER QDWPEDKRRY FIKMGNYLKI DTPRQEANEL</p> <p>TEYERSISPL LFEDSPPDLQ PQGSPFQLNS EEQNNPQIAQ NSVFGTSAE EVVKEIRFRI</p> <p>EQKTTLTASA GIAPNTMLAK VCSKDNKPNG QYQILPSRSA VMDFIKDLPI RKVSGIGKVT</p> <p>EKMLMALGIV TCTELYQORA LLSLLFSETS WHYFLHIALG LGSTDLARDG ERKSMSVERT</p> <p>FSEISKTEEQ YSLCQELCAE LAHDLQKEGL KGRTVTIKLK NVNFEVKTRA STVPAAISTA</p> <p>EEIFAIAKEL LRTEVNVGSP HPLRLRLMGV RMSTFSEDD RKHQQRSIIG FLQAGNQALS</p> <p>STGDSLDKTD KTELAKPLEM SHKKSFFDKK RSERISNCQD TSRCKTAGQQ ALQILEPSQA</p> <p>LKKLSESFET SENSNDQCQTF ICPVCFREQE GVSLEAFNEH VDECLDGPST SENSKISCYS</p>

HASSADIGQK EDVHPSIPLC EKRGHENGEI TLVDGVDLTG TEDRSKAAK MDTLENNRSK  
EECPDIPDKS CPISLENETI STLSRQDSVQ PCTDEVVTGR ALVCPVCNLE QETSDLTLFN  
IHVDICLNKG IIQELRNSEG NSVKQPKES RSTDRLQKAS GRTKRPGTKT KSSTLKKTTP  
RDPRHTLDGF FK

**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.
- 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.

## Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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## Target Details

Target:	POLK
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Alternative Name:	Polk ( <a href="#">POLK Products</a> )
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Background:	DNA polymerase kappa (EC 2.7.7.7) (DINB protein) (DINP),FUNCTION: DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high-fidelity DNA polymerases cannot proceed and DNA synthesis stalls (PubMed:12432099). Depending on the context, it inserts the correct base, but causes frequent base transitions, transversions and frameshifts. Lacks 3'-5' proofreading exonuclease activity. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have lyase activity (By similarity). {ECO:0000250 UniProtKB:Q9UBT6, ECO:0000269 PubMed:12432099}.
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Molecular Weight:	96.0 kDa
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UniProt:	<a href="#">Q9QUG2</a>
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Pathways:	<a href="#">DNA Damage Repair</a>
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## 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.
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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</p>
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Application Details

	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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months