

Datasheet for ABIN3078979

POLL Protein (AA 1-575) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	POLL
Protein Characteristics:	AA 1-575
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLL protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Sequence: MDPRGILKAF PKRQKIHADA SSKVLAKIPR REEGEEAEW LSSLRAHVVR TGIGRARAEL
FEKQIVQHGG QLCPAQGGPV THIVVDEGMD YERALRLLRL PQLPPGAQLV KSAWLSLCLQ
ERRLVDVAGF SIFIPSTRYLD HPQPSKAEQD ASIPPGTHEA LLQTALSPPP PPTRPVSP PQ
KAKEAPNTQA QPISDDEASD GEETQVSAAD LEALISGHYP TSLEGDCEPS PAPAFLDKWV
CAQPSSQKAT NNNLHITEKL EVLAKAYSVQ GDKWRALGYA KAINALKSFH KPVTSYQEAC
SIPGIGKRMA EKIIIELESG HLRKLDHISE SVPVLELFSN IWGAGTKTAQ MWYQQGFRSL
EDIRSQASLT TQQAIGLKHY SDFLERMPRE EATEIEQTVQ KAAQAFNSGL LCVACGSYRR
GKATCGDQDV LITHPDGRSH RGIFSRLLDS LRQEGFLTDD LVSQEENGQQ QKYLGVCRPL
GPGRRRHRLD IIVVPYSEFA CALLYFTGSA HFNRSMRALA KTKGMSLSEH ALSTAVVRNT
HGCKVGPGRV LPTPEKDV F RLLGLPYREP AERDW

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

Product Details

2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	POLL
Alternative Name:	POLL (POLL Products)
Background:	DNA polymerase lambda (Pol Lambda) (EC 2.7.7.7) (EC 4.2.99.-) (DNA polymerase beta-2) (Pol beta2) (DNA polymerase kappa),FUNCTION: DNA polymerase that functions in several pathways of DNA repair (PubMed:11457865, PubMed:19806195, PubMed:20693240, PubMed:30250067). Involved in base excision repair (BER) responsible for repair of lesions that give rise to abasic (AP) sites in DNA (PubMed:11457865, PubMed:19806195). Also contributes to DNA double-strand break repair by non-homologous end joining and homologous recombination (PubMed:19806195, PubMed:20693240, PubMed:30250067). Has both template-dependent and template-independent (terminal transferase) DNA polymerase activities (PubMed:10982892, PubMed:10887191, PubMed:12809503, PubMed:14627824, PubMed:15537631, PubMed:19806195). Has also a 5'-deoxyribose-5-phosphate lyase (dRP lyase) activity (PubMed:11457865, PubMed:19806195). {ECO:0000269 PubMed:10887191, ECO:0000269 PubMed:10982892, ECO:0000269 PubMed:11457865, ECO:0000269 PubMed:12809503, ECO:0000269 PubMed:14627824, ECO:0000269 PubMed:15537631, ECO:0000269 PubMed:19806195, ECO:0000269 PubMed:20693240, ECO:0000269 PubMed:30250067}.
Molecular Weight:	63.5 kDa
UniProt:	Q9UGP5
Pathways:	DNA Damage Repair , Production of Molecular Mediator of Immune Response

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
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Application Details

	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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process