

Datasheet for ABIN7547144  
**POLN Protein (AA 1-900) (His tag)**



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## Overview

Quantity:	1 mg
Target:	POLN
Protein Characteristics:	AA 1-900
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLN protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Purpose:	Custom-made recombinat POLN Protein expressed in mammalian cells.
Sequence:	<p>MENYEALVGF DLCNTPLSSV AQKIMSAMHS GDLVDSKTWG KSTETMEVIN KSSVKYSVQL</p> <p>EDRKTQSPEK KDLKSLRSQT SRGSAKLSPQ SFSVRLTDQL SADQKQKSI SLTLSSCLIP</p> <p>QYNQEASVLQ KKGHKRKHFL MENINNENKG SINLKRKHIT YNNLSEKTSK QMALEEDTDD</p> <p>AEGYLNSGNS GALKKHFCDI RHLDDWAKSQ LIEMLKQAAA LVITVMYTDG STQLGADQTP</p> <p>VSSVRGIVVL VKRQAEGGHG CPDAPACGPV LEGFVSDDPC IYIQIEHSAI WDQEQEAHQ</p> <p>FARNVLFQTM KCKCPVICFN AKDFVRVLQ FFGNDGSWKH VADFIGLDPR IAAWLIDPSD</p> <p>ATPSFEDLVE KYCEKSITVK VNSTYGNSSR NIVNQNVREN LKTLRYLTMD LCSKLKDYGL</p> <p>WQLFRTLELP LIPILAVMES HAIQVNKEEM EKTSALLGAR LKELEQEAHF VAGERFLITS</p> <p>NNQLREILFG KLKLHLLSQR NSLPRTGLQK YPSTSEAVLN ALRDLHPLPK ILEYRQVHK</p> <p>IKSTFVDGLL ACMKKGSISS TWNQTGTVTG RLSAKHPNIQ GISKHPHIQIT TPKNFKGKED</p> <p>KILTISPRAM FVSSKGHTFL AADFSQIELR ILTHLSGDPE LLKLFQESER DDVFSTLTSQ</p>

WKDVPVEQVT HADREQTKKV VYAVVYGAGK ERLAACLGVP IQEAAQFLES FLQKYKKIKD  
FARAAIAQCH QTGCVVSIMG RRRPLPRIHA HDQQLRAQAE RQAVNFVVQG SAADLCKLAM  
IHFVTAVAAS HTLTARLVAQ IHDELLFEVE DPQIPECAAL VVRTMESLEQ VQALELQLQV  
PLKVSLSAGR SWGHLVPLQE AWGPPPGPCR TESPSNSLAA PGSPASTQPP PLHFSPSFCL

**Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

POLN

Alternative Name:

POLN ([POLN Products](#))

Target Type:

Viral Protein

Background:

DNA polymerase nu (EC 2.7.7.7),FUNCTION: DNA polymerase with very low fidelity that catalyzes considerable misincorporation by inserting dTTP opposite a G template, and dGTP opposite a T template (PubMed:16787914, PubMed:17118716). Is the least accurate of the DNA polymerase A family (i.e. POLG, POLN and POLQ) (PubMed:17118716). Can perform accurate translesion DNA synthesis (TLS) past a 5S-thymine glycol. Can perform efficient

## Target Details

strand displacement past a nick or a gap and gives rise to an amount of product similar to that on non-damaged template. Has no exonuclease activity (PubMed:16787914). Error-prone DNA polymerase that preferentially misincorporates dT regardless of template sequence (PubMed:25775266). May play a role in TLS during interstrand cross-link (ICL) repair (PubMed:19908865). May be involved in TLS when genomic replication is blocked by extremely large major groove DNA lesions. May function in the bypass of some DNA-protein and DNA-DNA cross-links. May have a role in cellular tolerance to DNA cross-linking agents (PubMed:20102227). Involved in the repair of DNA cross-links and double-strand break (DSB) resistance. Participates in FANCD2-mediated repair. Forms a complex with HELQ helicase that participates in homologous recombination (HR) repair and is essential for cellular protection against DNA cross-links (PubMed:19995904). {ECO:0000269|PubMed:16787914, ECO:0000269|PubMed:17118716, ECO:0000269|PubMed:19908865, ECO:0000269|PubMed:19995904, ECO:0000269|PubMed:20102227, ECO:0000269|PubMed:25775266}.

Molecular Weight: 100.3 kDa

UniProt: [Q7Z5Q5](#)

## 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.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months