

Datasheet for ABIN7565103  
**POLH Protein (AA 1-694) (His tag)**



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## Overview

Quantity:	1 mg
Target:	POLH
Protein Characteristics:	AA 1-694
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLH protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant Polh Protein expressed in mammalian cells.
Sequence:	<p>MAPGQNRVVA LVDMDCEFFVQ VEQRQNPHLR NKPCAVVQYK SWKGGGIIAV SYEARAFGVT</p> <p>RNMWADDAKK LCPDLLLAQV RESRGKANLT KYREASVEVM EIMSYFVIE RASIDEAYID</p> <p>LTSVQERLQ KLQGQPISAD LLPSTYIEGL PRGPTVEETV QKEAIRKQGL LQWLDSLQSD</p> <p>DPTSPDLRLT VGAMIVEEMR AAIESKTGFQ CSAGISHNKV LAKLACGLNK PNRQTLVSHG</p> <p>SVPQLFSQMP IRKIRSLGGK LGASVIEVLG IEYMGDLTQF TESQLQSHFG EKNGSWLYAM</p> <p>CRGIEHDPVK PRQLPKTIGC SKNFPGKTAL ATREQVQWWL LQLALELEER LTKDRNDNDR</p> <p>VATQLVVSIR FQGDRRLSSL RRCCALPRYD AHKMSQDAFA AIRNCNTSGI QTEWSPPLTM</p> <p>LFLCATKFSA AAPPACTDIT AFLSSDSSCQ PKVPIASSET RTQGSGPAVP TSKEAATSLA</p> <p>SFFQKAAKKQ RMKETSFVPL NTATEKLSSK PSLVFQSSQT TGSQSFFKQK SLLLQHTQLS</p> <p>NSAAPDPPQA SPAAQPSCLP AECVDSGPDD GAVKPVSSKA VSTEMNVAGD SPNVLDSPAY</p> <p>NSQEVTRAT EDQVLCEKCD SLVPVWDMPE HTDYHFALEL QKSFLQPCTS KPQAIPAVSP</p> <p>QGKRNPSPS ASSSKRLRPH GMQTLESFFK PLTH <b>Sequence without tag. The proposed</b></p>

**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.**

**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

**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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

**Grade:** custom-made

## Target Details

**Target:** POLH

**Alternative Name:** Polh ([POLH Products](#))

**Background:** DNA polymerase eta (EC 2.7.7.7) (RAD30 homolog A) (Xeroderma pigmentosum variant type protein homolog),FUNCTION: DNA polymerase specifically involved in the DNA repair by translesion synthesis (TLS) (PubMed:10871396). Due to low processivity on both damaged and normal DNA, cooperates with the heterotetrameric (REV3L, REV7, POLD2 and POLD3) POLZ complex for complete bypass of DNA lesions. Inserts one or 2 nucleotide(s) opposite the lesion, the primer is further extended by the tetrameric POLZ complex. In the case of 1,2-intrastrand d(GpG)-cisplatin cross-link, inserts dCTP opposite the 3' guanine (By similarity). Particularly important for the repair of UV-induced pyrimidine dimers (PubMed:10871396). Although inserts

## Target Details

the correct base, may cause base transitions and transversions depending upon the context. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have any lyase activity, preventing the release of the 5'-deoxyribose phosphate (5'-dRP) residue. This covalent trapping of the enzyme by the 5'-dRP residue inhibits its DNA synthetic activity during base excision repair, thereby avoiding high incidence of mutagenesis. Targets POLI to replication foci (By similarity). {ECO:0000250|UniProtKB:Q9Y253, ECO:0000269|PubMed:10871396}.

Molecular Weight:	76.2 kDa
UniProt:	<a href="#">Q9JJN0</a>
Pathways:	<a href="#">DNA Damage Repair</a>

## Application Details

Application Notes:	We expect the protein to work for functional studies. 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