

Datasheet for ABIN7547124  
**POLD4 Protein (AA 1-107) (His tag)**



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## Overview

Quantity:	1 mg
Target:	POLD4
Protein Characteristics:	AA 1-107
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLD4 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant POLD4 Protein expressed in mammalian cells.
Sequence:	MGRKRLITDS YPVVKRREGP AGHSGGELAP ELGEEPQPRD EEEAELELLR QFDLAWQYGP CTGITRLQRW CRAKQMGLEP PPEVWQVLKT HPGDPRFQCS LWHLYPL <b>Sequence without tag.</b> <b>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.</b>
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: <ul style="list-style-type: none"><li>• Made to order protein - from design to production - by highly experienced protein experts.</li><li>• Protein expressed in mammalian cells and purified in one-step affinity chromatography</li><li>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li></ul>

## Product Details

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- 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.

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Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

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## Target Details

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Target:	POLD4
Alternative Name:	POLD4 ( <a href="#">POLD4 Products</a> )
Background:	<p>DNA polymerase delta subunit 4 (DNA polymerase delta subunit p12),FUNCTION: As a component of the tetrameric DNA polymerase delta complex (Pol-delta4), plays a role in high fidelity genome replication and repair. Within this complex, increases the rate of DNA synthesis and decreases fidelity by regulating POLD1 polymerase and proofreading 3' to 5' exonuclease activity (PubMed:16510448, PubMed:19074196, PubMed:20334433). Pol-delta4 participates in Okazaki fragment processing, through both the short flap pathway, as well as a nick translation system (PubMed:24035200). Under conditions of DNA replication stress, required for the repair of broken replication forks through break-induced replication (BIR), a mechanism that may induce segmental genomic duplications of up to 200 kb (PubMed:24310611). Involved in Pol-delta4 translesion synthesis (TLS) of templates carrying O6-methylguanine or abasic sites (PubMed:19074196). Its degradation in response to DNA damage is required for the inhibition of fork progression and cell survival (PubMed:24022480). {ECO:0000269 PubMed:16510448, ECO:0000269 PubMed:19074196, ECO:0000269 PubMed:20334433, ECO:0000269 PubMed:24022480, ECO:0000269 PubMed:24035200, ECO:0000269 PubMed:24310611}.</p>
Molecular Weight:	12.4 kDa
UniProt:	<a href="#">Q9HCU8</a>

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## Target Details

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Pathways: [Telomere Maintenance](#), [DNA Damage Repair](#), [DNA Replication](#), [Synthesis of DNA](#)

## Application Details

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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

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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