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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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DNA Polymerase θ (POLQ), His-Tag, SUMO-Tag Recombinant

Catalog: 101945
Lot: 230726-G

Product Information

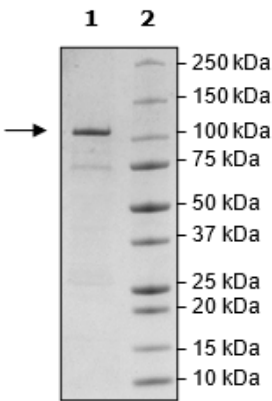
Description:	Recombinant human DNA polymerase θ (Theta), also known as POLQ, encompassing amino acids 1792 to 2590. This construct contains an N-terminal His-tag (6xHis) followed by a thrombin cleavage site and a SUMO-tag. This protein was affinity purified.
Background:	Polymerases are the enzymes responsible for synthesizing nucleic acids. DNA Polymerase θ , also known as DNA polymerase subunit theta, POLQ, belongs to the Family A of DNA polymerases. In addition to its DNA polymerase activity, it acts on the theta-mediated end joining (TMEJ), which classifies it as a specialized polymerase. TMEJ is a DNA repair mode that is prone to errors, and in addition to DNA polymerase θ it involves PARP1 (poly polymerase 1) and DNA ligase III. Inhibition of DNA polymerase θ in cells containing a homologous recombination (HR) deficiency, as in BRCA (breast cancer type 1/2 susceptibility protein) deficient cells, is synthetic lethal. Therefore, polymerase θ inhibitors are promising candidates for the treatment of HR-deficient cancers or in combination with HR inhibitors such as PARP inhibitors. Further development of DNA polymerase θ inhibitors will bring new therapy options to cancer patients.
Species:	Human
Construct:	DNA Polymerase θ (His-Th-SUMO-1792-2590)
Concentration:	0.35 mg/ml
Expression System:	<i>E. coli</i>
Purity:	80%
Format:	Aqueous buffer solution.
Formulated In:	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	103 kDa
Genbank Accession:	NM_199420.4
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	Assay was performed according to DNA Polymerase θ Assay Kit (BPS Bioscience #82107) with various amounts of DNA Polymerase θ (POLQ) protein.
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Quality Control Data

4-20% SDS-PAGE Coomassie Staining



DNA Polymerase θ Activity

