Recombinant Mouse Pold4 Protein, Myc/DDK-tagged

Cat. No. Pold4-4984M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length polymerase (DNA-directed), delta 4 (Pold4), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. Pol-delta4 participates in Okazaki fragment processing, through both the short flap pathway, as well as a nick translation system. 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. Involved in Pol-delta4 translesion synthesis (TLS) of templates carrying O6-methylguanine or abasic sites. Its degradation in response to DNA damage is required for the inhibition of fork progression and cell survival.
Molecular Mass	12.9 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pold4 polymerase (DNA-directed), delta 4 [Mus musculus (house mouse)]
Official Symbol	Pold4
Synonyms	POLD4; polymerase (DNA-directed), delta 4; DNA polymerase delta subunit 4; DNA polymerase delta subunit p12; DNA polymerase delta smallest subunit p12; p12; Polds; AI463381; AW060307; 2410012M21Rik
Gene ID	69745
mRNA Refseq	NM_027196
Protein Refseq	NP_081472
UniProt ID	Q9CWP8

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