Datasheet for ABIN2452172

POLK Protein

3 Images | 3 Publications

Go to Product page

Overview

Quantity:	50 µg
Target:	POLK
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	ELISA, Western Blotting (WB), Functional Studies (Func)

Product Details

Characteristics:	This product was over-expressed as a recombinant protein in E. coli with a plasmid carrying a C-terminal histidine-tagged human DNA polymerase κ (1-560 aa), and highly purified by several steps of chromatography. The product is catalytically active and its molecular weight is 65 kD. Activity of this product has been confirmed by a user researcher even if it was diluted 8,000-fold.
Purity:	> 90 % by SDS-PAGE (CBB staining)

Target Details

Target:	POLK
Alternative Name:	DNA Polymerase kappa (POLK Products)
Background:	Mammalian DNA polymerase κ, a member of the UmuC/DinB nucleotidyl transferase superfamily, has been implicated in spontaneous mutagenesis. Human DNA polymerase κ

Target Details

	copies undamaged DNA with average single-base subsitution and deletion error rates of 7 x 10-3 and 2 x 10-3, respectively. These error rates are high when compared to those of most other DNA polymerases. DNA polymerase κ has important role in the mutagenic bypass of certain types of DNA lesions.
UniProt:	Q9UBT6
Pathways:	DNA Damage Repair

Application Details

Application Notes:	Other applications are not tested.
Restrictions:	For Research Use only

Handling

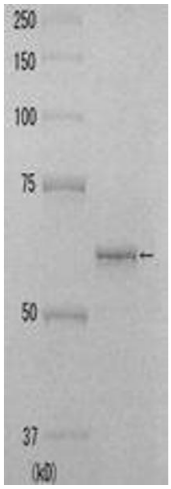
Format:	Liquid
Concentration:	3.2 mg/mL
Buffer:	0.2 M NaCl, 10 mM sodium phosphate buffer (pH 7.0), 50 % glycerol
Storage:	-20 °C/-80 °C
Storage Comment:	Upon arrival centrifuge briefly and store at -20 C or at -80 C for longer storage.

Publications

Product cited in:	Ohashi, Bebenek, Matsuda, Feaver, Gerlach, Friedberg, Ohmori, Kunkel: "Fidelity and processivity of DNA synthesis by DNA polymerase kappa, the product of the human DINB1 gene." in: **The Journal of biological chemistry**, Vol. 275, Issue 50, pp. 39678-84, (2001) (PubMed). Ohashi, Ogi, Kusumoto, Iwai, Masutani, Hanaoka, Ohmori: "Error-prone bypass of certain DNA lesions by the human DNA polymerase kappa." in: **Genes & development**, Vol. 14, Issue 13, pp. 1589-94, (2000) (PubMed). Czerkawski, Blaxter, Wainman: "The metabolism of oleic, linoleic and linolenic acids by sheep with reference to their effects on methane production." in: **The British journal of nutrition**, Vol. 20, Issue 2, pp. 349-62 (PubMed).

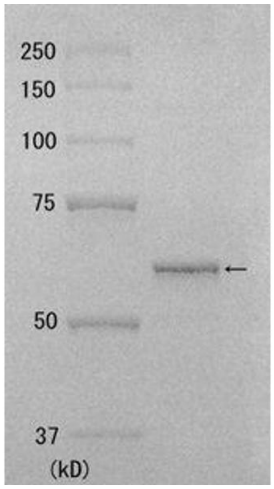
SDS-PAGE

Image 1.



Western Blotting

Image 2.



Western Blotting

Image 3.

