

Anti-POLK/Dna Polymerase Kappa Antibody

Catalog Number: A01987

About POLK

POLK (also known as DNA polymerase kappa, DINB protein and DINP) is involved in DNA repair. POLK plays an important role in translesion synthesis, where the normal high-fidelity DNA polymerases cannot proceed and DNA synthesis stalls. Depending on the context, it inserts the correct base, but causes frequent base transitions, transversions and frameshifts. POLK lacks 3'-5' proofreading exonuclease activity. POLK is a nuclear protein that binds to REV1L and PCNA. POLK is detected throughout the nucleus and at replication foci. Multiple alternative splice variants have been detected for this protein. POLK is found at low levels in testis, spleen, prostate and ovary and at very low levels in kidney, colon, brain, heart, liver, lung, placenta, pancreas and peripheral blood leukocytes.

Overview

Product Name	Anti-POLK/Dna Polymerase Kappa Antibody
Reactive Species	Human
Description	Boster Bio Anti-POLK/Dna Polymerase Kappa Antibody (Catalog # A01987). Tested in ELISA, WB applications. This antibody reacts with Human.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Goat
Uniprot ID	Q9UBT6

Technical Details

Immunogen	This affinity-purified antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 817-830 of Human POLK (polymerase (DNA directed) kappa).
Predicted Reactive Species	Bovine, Pufferfish, Zebrafish
Isotype	IgG
Form	Liquid (sterile filtered)

Concentration	1.4 mg/mL by UV absorbance at 280 nm
Purification	This affinity purified antibody is directed against human POLK protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, chimpanzee and orangutan based on 100% homology for the immunogen sequence. Cross-reactivity with POLK protein from mouse is expected, as this sequence is highly homologous in human and mouse. Expect reactivity with multiple splice variants of this protein. Cross-reactivity with POLK homologues from other sources has not been determined.
Suggested Dilutions	ELISA: 1:2,000 - 1:10,000 WB: 1:500 - 1:3,000 This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band ~ 98.8 kDa in size corresponding to POLK by western blotting in the appropriate cell lysate or extract. Splice variants for this protein may show molecular weights of 89.0 and 76.4 kDa.

Anti-POLK/Dna Polymerase Kappa Antibody (A01987) Images



Western blot using Boster's Affinity Purified anti-POLK antibody shows detection of a band ~98 kDa corresponding to human POLK (arrowhead). Approximately 35 μ g of a HeLa whole cell lysate was separated by 4-20% SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:1,000. Reaction occurred overnight at 4° followed by washes and reaction with a 1:20,000 dilution of IRDye™ 800 conjugated Rb-a-Goat IgG [H&L] MXHu for 45 min at room temperature. IRDye™ 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

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