bs-13017R **[Primary Antibody]**

POLG Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5428 **SWISS:** P54098

Target: POLG

Immunogen: KLH conjugated synthetic peptide derived from human POLG: 1101-1239/1239.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: DNA replication, recombination and repair, all of which are necessary for genomic stability, require the presence of exonucleases. In DNA replication, these enzymes are involved in the processing of Okazaki fragments, whereas in DNA repair, they function to excise damaged DNA fragments and correct recombinational mismatches. These exonucleases include the family of DNA polymerases (DNA pol). DNA pol Alpha, Beta, Gamma, and epsilon are involved in DNA replication and repair. DNA pol gamma and DNA pol e are multi-subunit enzymes, with DNA pol gamma consisting of two subunits: p125, which interacts with the sliding DNA clamp protein, PCNA, and p50. The nuclear-encoded DNA pol Delta is the only DNA polymerase required for the replication of the mitochondrial DNA. DNA pol zeta is ubiquitously expressed in various tissues and mediates the cellular mechanism of damage-induced mutagenesis. DNA pol theta is a DNA polymerase-helicase that binds ATP and is involved in the repair of interstrand crosslinks.

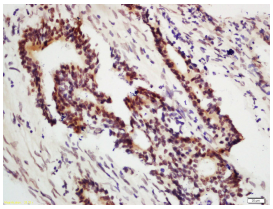
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human (predicted: Mouse, Rat, Pig)

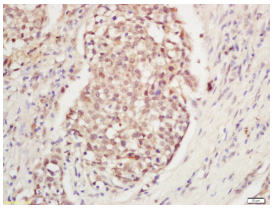
Predicted MW.: 140 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Tissue/cell: human colon cancer; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-MDP1 / DNA Polymerase gamma Polyclonal Antibody, Unconjugated(bs-13017R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human laryngeal tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-MDP1 / DNA Polymerase gamma Polyclonal Antibody, Unconjugated(bs-13017R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=6.24]** Chen, Xubo, et al. "The role of sodium hydrosulfide in attenuating the aging process via PI3K/AKT and

CaMKKβ/AMPK pathways." Redox Biology (2017). WB ;="Rat". 28499253

- **[IF=5.8]** Fei Zheng. et al.Mung bean-derived carbon dots suppress ferroptosis of Schwann cellsviathe Nrf2/HO-1/GPX4 pathway to promote peripheral nerve repair † .BIOMATERIALS SCIENCE.2025 Jan 27. Western blot ;mouse. 39865780