SANTA CRUZ BIOTECHNOLOGY, INC.

DNA pol λ (H-172): sc-48812



BACKGROUND

DNA polymerase κ (pol λ), also designated DNA polymerase κ or pol β 2, is a low-fidelity polymerase which plays a role in both spontaneous and DNA damage-induced mutagenesis. Encoded by the POLL gene, pol λ is a member of the DNA polymerase type-X family. Pol λ extends primer-terminal mispairs opposite nondamaged DNA templates, suggesting that it may assist in extending mismatched base pairs during normal DNA replication. In addition, pol λ may play a role in the mutagenic bypass of T-T dimers. Proliferating cell nuclear antigen (PCNA), a protein essential to DNA replication, interacts with pol λ and thus influences the ability of pol λ to synthesize DNA.

REFERENCES

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- 2. Ohashi, E., et al. 2000. Fidelity and processivity of DNA synthesis by DNA polymerase $\kappa,$ the product of the human DINB1 gene. J. Biol. Chem. 275: 39678-39684.
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- 4. Paunesku, T., et al. 2001. Proliferating cell nuclear antigen (PCNA): ringmaster of the genome. Int. J. Radiat. Biol. 77: 1007-1021.
- Ogi, T., et al. 2001. Expression of human and mouse genes encoding pol κ: testis-specific developmental regulation and AhR-dependent inducible transcription. Genes Cells 6: 943-953.
- 6. Washington, M.T., et al. 2002. Human DINB1-encoded DNA polymerase κ is a promiscuous extender of mispaired primer termini. Proc. Natl. Acad. Sci. USA 99: 1910-1914.
- Haracska, L., et al. 2002. Stimulation of DNA synthesis activity of human DNA polymerase κ by PCNA. Mol. Cell. Biol. 22: 784-791.

CHROMOSOMAL LOCATION

Genetic locus: POLL (human) mapping to 10q24.32; Poll (mouse) mapping to 19 C3.

SOURCE

DNA pol λ (H-172) is a rabbit polyclonal antibody raised against amino acids 389-560 mapping near the C-terminus of DNA pol λ of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DNA pol λ (H-172) is recommended for detection of DNA pol λ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DNA pol λ (H-172) is also recommended for detection of DNA pol λ in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for DNA pol λ siRNA (h): sc-43729, DNA pol λ siRNA (m): sc-37788, DNA pol λ shRNA Plasmid (h): sc-43729-SH, DNA pol λ shRNA Plasmid (m): sc-37788-SH, DNA pol λ shRNA (h) Lentiviral Particles: sc-43729-V and DNA pol λ shRNA (m) Lentiviral Particles: sc-37788-V.

Molecular Weight of DNA pol λ : 68 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, A549 cell lysate: sc-2413 or Hep G2 cell lysate: sc-2227.

DATA



DNA pol λ (H-172): sc-48812. Western blot analysis of DNA pol λ expression in A549 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **DNA pol** λ (E-11): sc-373844, our highly recommended monoclonal alternative to DNA pol λ (H-172).