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## POLB Antibody Blocking Peptide

Catalog Number: bs-8525P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored 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 (1). 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 (2). These exonucleases include the family of DNA polymerases (3). DNA pol  $\alpha$ ,  $\beta$ ,  $\delta$ , and  $\epsilon$  are involved in DNA replication and repair (4). DNA pol  $\delta$  and DNA pol  $\epsilon$  are multisubunit enzymes, with DNA pol  $\delta$  consisting of two subunits p125, which interacts with the sliding DNA clamp protein PCNA, and p50 (5). The nuclear-encoded DNA pol  $\gamma$  is the only DNA polymerase required for the replication of the mitochondrial DNA (6). DNA pol  $\Omega$  is ubiquitously expressed in various tissues and mediates the cellular mechanism of damage-induced mutagenesis (7). DNA pol  $\theta$  is a DNA polymerase-helicase that binds ATP and is involved in the repair of interstrand crosslinks (8).