

## Recombinant Human DNA Polymerase $\beta$ /POLB Protein (His Tag)

Catalog No. PKSH032360

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

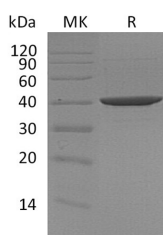
### Description

|                                    |                            |
|------------------------------------|----------------------------|
| <b>Synonyms</b>                    | DNA Polymerase Beta;POLB   |
| <b>Species</b>                     | Human                      |
| <b>Expression Host</b>             | E.coli                     |
| <b>Sequence</b>                    | Ser2-Glu335                |
| <b>Accession</b>                   | P06746                     |
| <b>Calculated Molecular Weight</b> | 39.2 kDa                   |
| <b>Observed molecular weight</b>   | 39 kDa                     |
| <b>Tag</b>                         | C-His                      |
| <b>Bioactivity</b>                 | Not validated for activity |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per $\mu$ g of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Store at $-20^{\circ}\text{C}$ , stable for 6 months. Please minimize freeze-thaw cycles.  |
| <b>Shipping</b>       | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at $-20^{\circ}\text{C}$ . |
| <b>Formulation</b>    | Supplied as a 0.2 $\mu$ m filtered solution of 20mM Tris-HCl, 100mM NaCl, 1mM DTT, 1mM EDTA, 50% Glycerol, pH 7.8.   |
| <b>Reconstitution</b> | Not Applicable   |

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Human DNA polymerase  $\beta$  is constitutively expressed in cells. It fills in gaps in DNA that are formed following base excision repair. Repair polymerase that plays a key role in base-excision repair. Has 5'-deoxyribose-5-phosphate lyase (dRP lyase) activity that removes the 5' sugar phosphate and also acts as a DNA polymerase that adds one nucleotide to the 3' end of the arising single-nucleotide gap. It conducts 'gap-filling' DNA synthesis in a stepwise distributive fashion rather than in a processive fashion as for other DNA polymerases. The activity cannot be affected by Aphidicolin, which

### For Research Use Only

is an inhibitor of DNA polymerase  $\beta$ .