## 32-2692: POLB Recombinant Protein

Alternative Name : DNA polymerase beta,POLB

## Description

Source : Escherichia Coli. POLB Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 355 amino acids (1-335 a.a) and having a molecular mass of 40.3 kDa . POLB is fused to a 20 amino acid His-tag at N terminus \& purified by proprietary chromatographic techniques. DNA polymerase beta (POLB) is a member of the DNA polymerase type-X family. In eukaryotic cells, POLB performs base excision repair necessary for DNA maintenance, replication, recombination, and drug resistance. POLB has 2 separate domains; the larger is the polymerase domain itself, whereas a small basic N -terminal domain contains an AP lyase activity which excises the abasic sugar-phosphate residue at the strand break. POLB fills single nucleotide gaps in DNA produced by the base excision repair pathway of mammalian cells. POLB overexpression, as seen in some human tumors, could convene an increase in spontaneous mutagenesis.

## Product Info

| Amount : | $20 \mu \mathrm{~g}$ |
| :---: | :---: |
| Purification : | Greater than 90.0\% as determined by SDS-PAGE. |
| Content : | POLB protein solution ( $0.5 \mathrm{mg} / \mathrm{ml}$ ) containing 20 mM Tris-HCl buffer ( pH 8.0 ), 1 mM DTT, $30 \%$ glycerol and 0.1 M NaCl . |
| Storage condition : | Store at $4^{\circ} \mathrm{C}$ if entire vial will be used within $2-4$ weeks. Store, frozen at $-20^{\circ} \mathrm{C}$ for longer periods of time. For long term storage it is recommended to add a carrier protein ( $0.1 \%$ HSA or BSA).Avoid multiple freeze-thaw cycles. |
| Amino Acid : | MGSSHHHHHH SSGLVPRGSH MSKRKAPQET LNGGITDMLT ELANFEKNVS QAIHKYNAYR |
|  | KAASVIAKYP HKIKSGAEAK KLPGVGTKIA EKIDEFLATG KLRKLEKIRQ DDTSSSINFL |
|  | TRVSGIGPSA ARKFVDEGIK TLEDLRKNED KLNHHQRIGL KYFGDFEKRI PREEMLQMQD |
|  | IVLNEVKKVD SEYIATVCGS FRRGAESSGD MDVLLTHPSF TSESTKQPKL LHQVVEQLQK |
|  | VHFITDTLSK GETKFMGVCQ LPSKNDEKEY PHRRIDIRLI PKDQYYCGVL YFTGSDIFNK |
|  | NMRAHALEKG FTINEYTIRP LGVTGVAGEP LPVDSEKDIF DYIQWKYREP KDRSE. |



