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**Product Name: KD-Validated DNA Polymerase Beta Recombinant Rabbit Monoclonal Antibody****Catalog #: KVA00918**

For research use only.

**Summary**

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC                                                                  |
| <b>Reactivity</b>   | Human,Mouse,Rat                                                             |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

**Application**

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000 |
| <b>Molecular Weight</b> | Calculated MW: 38.2kDa                                  |

**Antigen Information**

|                          |                                                                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | POLB<br>POLB; DNA Polymerase Beta; Polymerase (DNA Directed), Beta; 5'-Deoxyribose-Phosphate                                           |
| <b>Alternative Names</b> | Lyase; Polymerase (DNA) Beta; 5'-DRP Lyase; AP Lyase; DNA Polymerase Beta Subunit; DNA Pol Beta; EC 4.2.99.18; EC 4.2.99.-; EC 2.7.7.7 |
| <b>Gene ID</b>           | 5423.0                                                                                                                                 |
| <b>SwissProt ID</b>      | P06746                                                                                                                                 |
| <b>Immunogen</b>         | A synthesized peptide derived from human DNA polymerase beta                                                                           |

**Background**

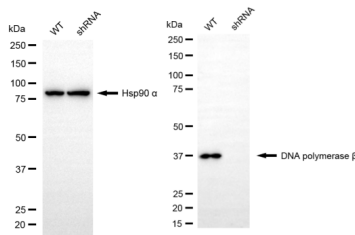
The protein encoded by this gene is a DNA polymerase involved in base excision and repair, also called gap-filling DNA

synthesis. The encoded protein, acting as a monomer, is normally found in the cytoplasm, but it translocates to the nucleus upon DNA damage. Several transcript variants of this gene exist, but the full-length nature of only one has been described to date. [provided by RefSeq, Sep 2011]

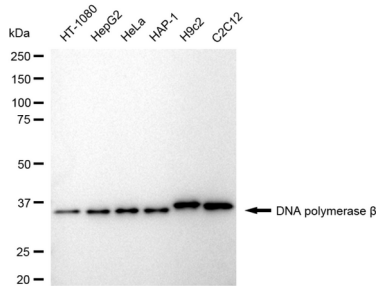
## Research Area

Epigenetics and Nuclear Signaling, Neuroscience

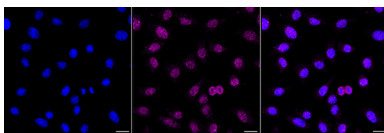
## Image Data



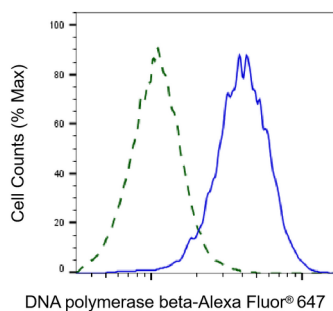
Western blotting analysis using DNA Polymerase beta antibody (KVA00918). DNA Polymerase beta expression in wild-type (WT) and DNA Polymerase beta (POLB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with DNA Polymerase beta antibody (KVA00918, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using DNA polymerase beta antibody (KVA00918). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with DNA polymerase beta antibody (KVA00918, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of C2C12 cells with DNA polymerase beta antibody (KVA00918, 1:1,000). Nuclei were stained blue with DAPI; DNA polymerase beta was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and Smart Gain: Low. Scale bar, 20 µm.



Validation of DNA polymerase beta knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with DNA polymerase beta antibody (KVA00918, 1:2,000) and analyzed using BD flow cytometer.