

## Anti-DNA Polymerase beta/POLB Antibody Picoband® Fluoro488 Conjugated

Catalog Number: PB9812-Fluoro488

### About POLB

Polymerase (DNA directed), beta, also known as POLB, is an enzyme that, in humans, is encoded by the POLB gene. It is localized on 8p11.2. The protein encoded by this gene is a DNA polymerase involved in base excision and repair, also called gap-filling DNA synthesis. It is found that a truncated POLB is expressed in primary colorectal tumors and inhibits the normal repair function of wildtype POLB. 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. Additionally, human POLB forms a complex with and is methylated by PRMT6. In vitro, methylated POLB possesses significantly higher DNA polymerase activity when compared to that of unmodified enzyme. The increase in DNA polymerase activity upon methylation is due to the enhanced DNA binding and processivity of POLB.

### Overview

Product Name	Anti-DNA Polymerase beta/POLB Antibody Picoband® Fluoro488 Conjugated
Reactive Species	Human, Mouse, Rat
Application	Recommended applications are based on the parent unconjugated antibody (WB). Customers may select suitable applications according to their experimental needs.
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.02% Na <sub>3</sub> N.
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
Host	Rabbit
Uniprot ID	P06746

### Technical Details

Immunogen	E.coli-derived human POLB recombinant protein (Position: L122-E335). Human POLB shares 95.3% and 94.9% amino acid (aa) sequence identity with mouse and rat POLB, respectively.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.

Conjugate	Fluoro488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Suggested Dilutions	Optimal dilutions should be determined by end users.

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