


## Product datasheet

# Anti-DNA Polymerase beta antibody [EPR12722(B)] ab175197

Recombinant RabMAb

★★★★☆ 4 Abreviews 6 References 5 Images

### Overview

|                     |  |
|---------------------|--|
| Product name        | Anti-DNA Polymerase beta antibody [EPR12722(B)]  |
| Description         | Rabbit monoclonal [EPR12722(B)] to DNA Polymerase beta   |
| Host species        | Rabbit   |
| Specificity         | The human recommendation is based on the WB results. We do not guarantee IHC-P for human   |
| Tested applications | <b>Suitable for:</b> ICC/IF, Flow Cyt, IHC-P, WB<br><b>Unsuitable for:</b> IP  |
| Species reactivity  | <b>Reacts with:</b> Human<br><b>Predicted to work with:</b> Mouse, Rat    |
| Immunogen           | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.  |
| Positive control    | WB: HeLa, Jurkat, K-562, A431, Mouse brain lysate, mouse spleen lysate, rat brain lysate, rat spleen lysate, C6 cell lysate ICC/IF: K-562 (Human chronic myelogenous leukemia lymphoblast)<br>IHC: human lung carcinoma  |
| General notes       | <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> |

### Properties

|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Storage buffer</b>       | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA              |
| <b>Purity</b>               | Protein A purified  |
| <b>Clonality</b>            | Monoclonal  |
| <b>Clone number</b>         | EPR12722(B)   |
| <b>Isotype</b>              | IgG   |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab175197 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

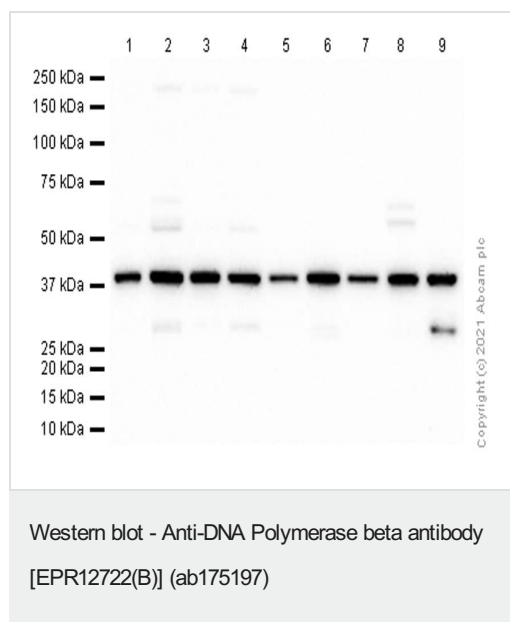
| Application | Abreviews | Notes   |
|-------------|-----------|---|
| ICC/IF      | ★★★★★ (1) | 1/50.   |
| Flow Cyt    |           | 1/200.  |
| IHC-P       |           | 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The human recommendation is based on the WB results. We do not guarantee IHC-P for human |
| WB          | ★★★★★ (3) | 1/1000. Predicted molecular weight: 38 kDa.   |

**Application notes** Is unsuitable for IP.

## Target

|   |   |
|---|---|
| <b>Function</b>                         | Repair polymerase. Conducts "gap-filling" DNA synthesis in a stepwise distributive fashion rather than in a processive fashion as for other DNA polymerases. Has a 5'-deoxyribose-5-phosphate lyase (dRP lyase) activity. |
| <b>Sequence similarities</b>            | Belongs to the DNA polymerase type-X family.  |
| <b>Domain</b>                           | Residues 239-252 form a flexible loop which appears to affect the polymerase fidelity.  |
| <b>Post-translational modifications</b> | Methylation by PRMT6 stimulates the polymerase activity by enhancing DNA binding and processivity.  |
| <b>Cellular localization</b>            | Nucleus, Cytoplasm  |

## Images



**Lanes 1-7 :** Anti-DNA Polymerase beta antibody [EPR12722(B)] (ab175197) at 1/1000 dilution (Purified)

**Lanes 8-9 :** Anti-DNA Polymerase beta antibody [EPR12722(B)] (ab175197) at 1/1000 dilution

**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate

**Lane 3 :** K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate

**Lane 4 :** A431 (Human epidermoid carcinoma epithelial cell) whole cell lysate

**Lane 5 :** Mouse brain lysate

**Lane 6 :** Mouse spleen lysate

**Lane 7 :** Rat brain lysate

**Lane 8 :** Rat spleen lysate

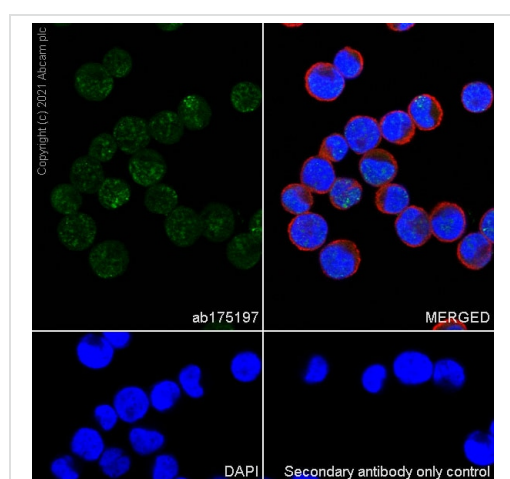
**Lane 9 :** C6 (Rat glial tumor glial cell) whole cell lysate

## Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

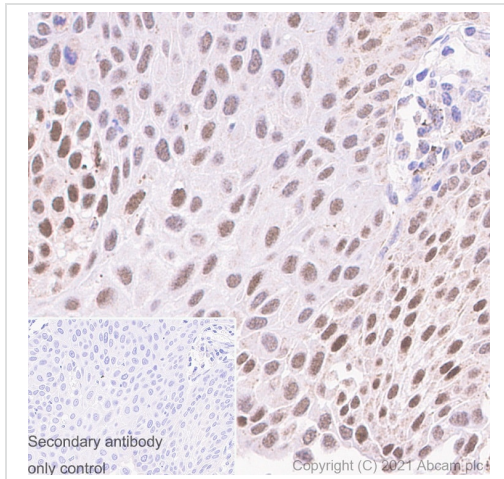
**Predicted band size:** 38 kDa

**Observed band size:** 38 kDa



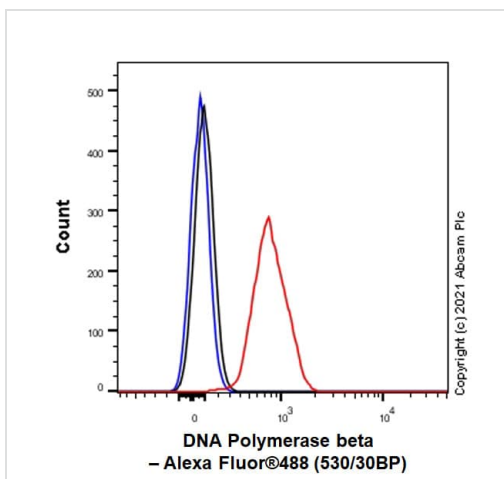
Immunocytochemistry/ Immunofluorescence - Anti-DNA Polymerase beta antibody [EPR12722(B)] (ab175197)

Immunocytochemistry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labeling DNA Polymerase beta with Purified ab175197 at 1:50 dilution (3.1 ? g/ml). Cells were fixed in 100% Methanol and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DNA Polymerase beta antibody [EPR12722(B)] (ab175197)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling with Purified ab175197 at 1:500 dilution (0.31 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control. M3



Flow Cytometry - Anti-DNA Polymerase beta antibody [EPR12722(B)] (ab175197)

Flow Cytometry analysis of A431 (Human epidermoid carcinoma epithelial cell) cells labelling DNA Polymerase beta with Purified ab175197 at 1:200 dilution (1 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor™ 488, **ab150077**) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-DNA Polymerase beta antibody [EPR12722(B)]  
(ab175197)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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