

Rabbit POLR2B Polyclonal Antibody | anti-POLR2B antibody

Anti-POLR2B Antibody Picoband

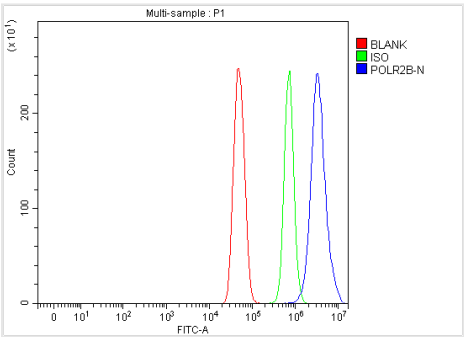
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127541	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

POLR2B; Polyclonal Antibody; Anti-POLR2B Antibody Picoband; RecQ mediated genome instability 2; RecQ-mediated genome instability protein 2; hRMI2; BLM-associated protein of 18 kDa; BLAP18; RMI2; C16orf75; anti-POLR2B antibody

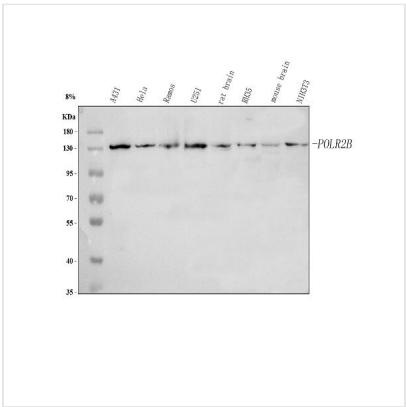
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-POLR2B antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human POLR2B recombinant protein (Position: E49-Q1145).
Subcellular Localization	Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Essential component of the RMI complex, a complex that plays an important role in the processing of homologous recombination intermediates. It is required to regulate sister chromatid segregation and to limit DNA crossover. Essential for the stability, localization, and function of BLM, TOP3A, and complexes containing BLM. In the RMI complex, it is required to target BLM to chromatin and stress-induced nuclear foci and mitotic phosphorylation of BLM.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



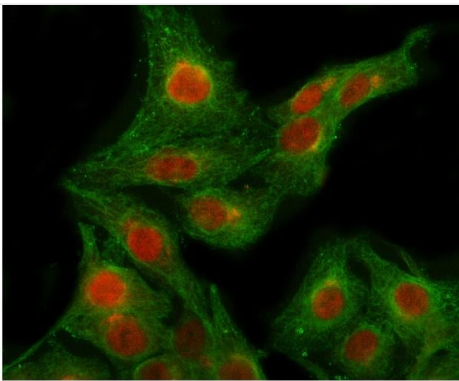
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of U251 cells using anti-POLR2B antibody (AAA127541).Overlay histogram showing U251 cells stained with AAA127541 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-POLR2B Antibody (AAA127541, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of POLR2B using anti-POLR2B antibody (AAA127541).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human A431 whole cell lysates,Lane 2: human HeLa whole cell lysates,Lane 3: human Ramos whole cell lysates,Lane 4: human U251 whole cell lysates,Lane 5: rat brain tissue lysates,Lane 6: rat RH35 whole cell lysates,Lane 7: mouse brain tissue lysates,Lane 8: mouse NIH/3T3 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-POLR2B antigen affinity purified polyclonal antibody (#AAA127541) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for POLR2B at approximately 130 kDa. The expected band size for POLR2B is at 134 kDa.



IF (Immunofluorescence)

Figure 2. IF analysis of POLR2B using anti-POLR2B antibody (AAA127541) and anti-Beta Tubulin antibody (M01857-3).POLR2B was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-POLR2B Antibody (AAA127541) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-POLR2B antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-POLR2B antibody	Primary Antibodies; Chromatin Binding Proteins; DNA/RNA; DNA/RNA Binding; DNA Damage & Repair; Epigenetics and Nuclear Signaling

References	1. Acker, J., Mattei, M.-G., Wintzerith, M., Roeckel, N., Depetris, D., Vigneron, M., Kedinger, C. Chromosomal localization of human RNA polymerase II subunit genes. Genomics 20: 496-499, 1994. 2. Acker, J., Wintzerith, M., Vigneron, M., Kedinger, C. Primary structure of the second largest subunit of human RNA polymerase II (or B). J. Molec. Biol. 226: 1295-1299, 1992. 3. Hsin, J.-P., Sheth, A., Manley, J. L. RNAP II CTD phosphorylated on threonine-4 is required for histone mRNA 3-prime end processing. Science 334: 683-686, 2011.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4505941
NCBI GeneID	5431
NCBI Accession #	NP_000929
NCBI GenBank Nucleotide #	NM_000938
UniProt Accession #	P30876; Q8IZ61; A8K1A8; AAB23139
Molecular Weight	133,897 Da
NCBI Official Full Name	DNA-directed RNA polymerase II subunit RPB2 isoform 1
NCBI Official Synonym Full Names	polymerase (RNA) II (DNA directed) polypeptide B, 140kDa
NCBI Official Symbol	POLR2B
NCBI Official Synonym Symbols	RPB2; POL2RB; hRPB140
NCBI Protein Information	DNA-directed RNA polymerase II subunit RPB2; DNA-directed RNA polymerase II 140 kDa polypeptide; DNA-directed RNA polymerase II subunit B; RNA polymerase II second largest subunit; RNA polymerase II subunit 2; RNA polymerase II subunit B2
UniProt Protein Name	DNA-directed RNA polymerase II subunit RPB2
UniProt Gene Name	POLR2B
UniProt Entry Name	RPB2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.