

# Phospho-POLR2A CTD-S2 Rabbit mAb

Catalog No.: AP0996

Recombinant

1 Publications

## Basic Information

### Observed MW

270 kDa

### Calculated MW

217 kDa

### Category

Primary antibody

### Applications

WB, IF/ICC, IHC-P, ChIP, ChIP-seq, CUT&amp;Tag, ELISA

### Cross-Reactivity

Human, Mouse, Rat

### CloneNo number

ARC1540

## Background

This gene encodes the largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. The product of this gene contains a carboxy terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, this subunit, in combination with several other polymerase subunits, forms the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA.

## Recommended Dilutions

**WB** 1:3000 - 1:10000**IF/ICC** 1:50 - 1:200**IHC-P** 1:50 - 1:200**ChIP** 5µg antibody for  
10µg-15µg of Chromatin**ChIP-seq** 1:50 - 1:100**CUT&Tag** 10<sup>5</sup> cells /1 µg**ELISA** Recommended starting  
concentration is 1 µg/mL.  
Please optimize the  
concentration based on  
your specific assay  
requirements.

## Immunogen Information

### Gene ID

5430

### Swiss Prot

P24928

### Immunogen

Synthetic peptide. This information is considered to be commercially sensitive.

### Synonyms

RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; NEDHIB; RplILS; hSRPB1; hRPB220; Phospho-POLR2A CTD-S2

## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

Affinity purification

### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

Contact

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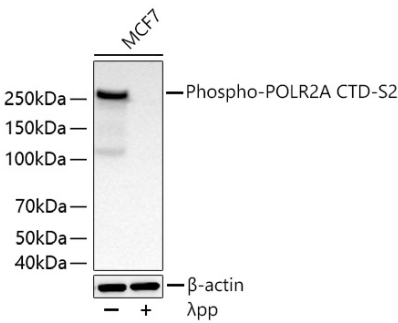
☎ | 400-999-6126

✉ | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

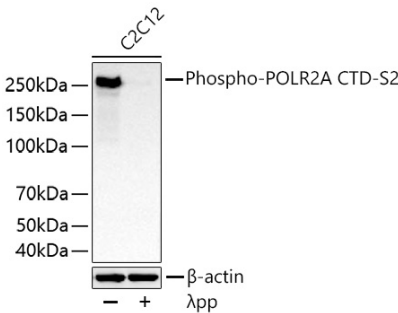
🌐 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

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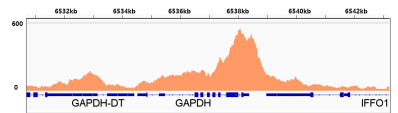
Validation Data



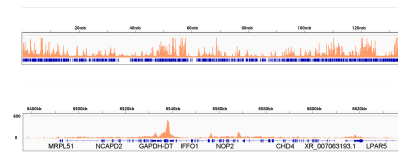
Western blot analysis of lysates from MCF7 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at 1:5000 dilution incubated overnight at 4°C. MCF7 cells were treated with λpp (2 U/ul) at 30°C for 1 hours. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 30 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 20 s.



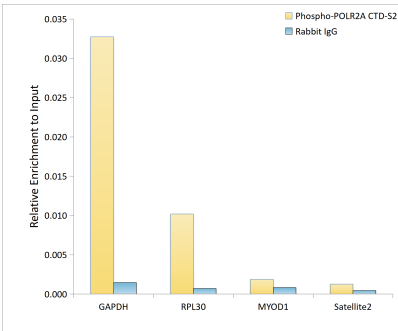
Western blot analysis of lysates from C2C12 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at 1:5000 dilution incubated overnight at 4°C. C2C12 cells were treated with λpp (2 U/ul) at 30°C for 1 hours. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 30 µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 45 s.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 293F cells and Phospho-POLR2A-S2 (AP0996). The ChIP sequencing results indicate the enrichment pattern of Phospho-POLR2A-S2 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

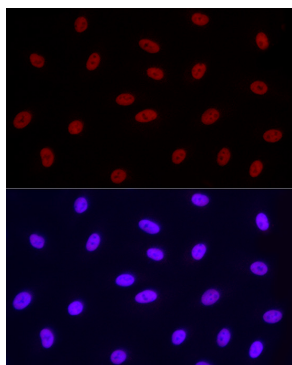


Chromatin immunoprecipitations were performed with cross-linked chromatin from 293F cells and Phospho-POLR2A-S2 (AP0996). The ChIP sequencing results indicate the enrichment pattern of Phospho-POLR2A-S2 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

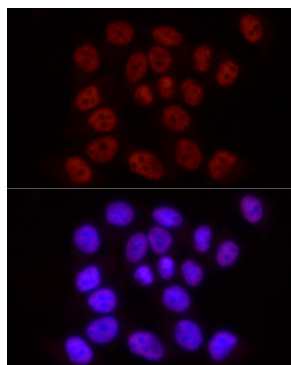


Chromatin immunoprecipitation analysis of extracts of 293F cells, using Phospho-POLR2A-S2 antibody (AP0996) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.

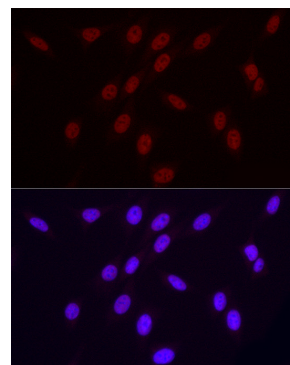
## Validation Data



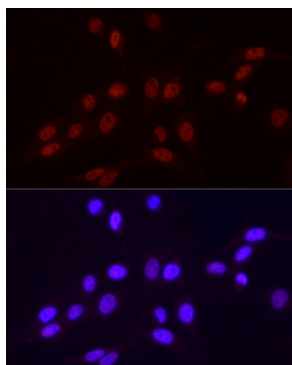
Immunofluorescence analysis of A-549 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



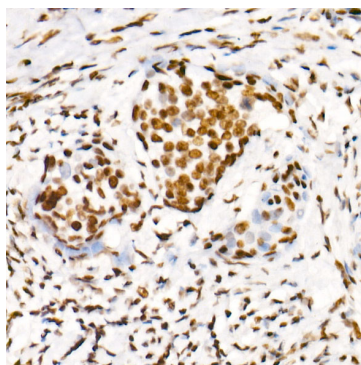
Immunofluorescence analysis of HeLa cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



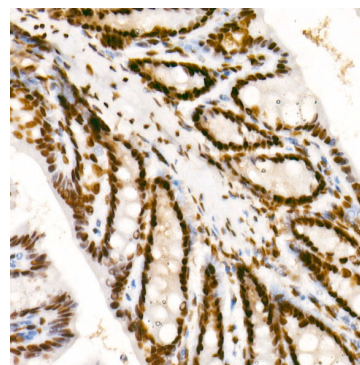
Immunofluorescence analysis of NIH/3T3 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



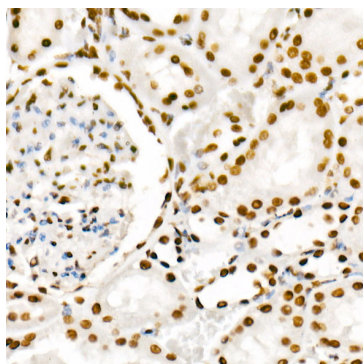
Immunofluorescence analysis of PC-12 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



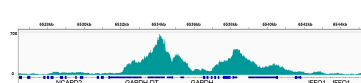
Immunohistochemistry analysis of paraffin-embedded Human cervix cancer using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



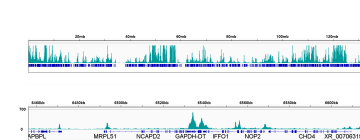
Immunohistochemistry analysis of paraffin-embedded Mouse colon using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat kidney using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



CUT&Tag was performed using the CUT&Tag Assay Kit(pAG-Tn5) for Illumina (RK20265) from  $10^5$  HeLa cells with 1 $\mu$ g Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996), along with a Goat Anti-Rabbit IgG (H+L). The CUT&Tag results indicate the enrichment pattern of Phospho-POLR2A CTD-S2 in representative gene loci (GAPDH).



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