

# Phospho-POLR2A CTD-S2 Rabbit mAb

Catalog No.: AP0996 **Recombinant**

## Basic Information

**Observed MW**

270kDa

**Calculated MW**

217kDa

**Category**

Primary antibody

**Applications**

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

**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

<b>WB</b>	1:500 - 1:2000
<b>IHC-P</b>	1:50 - 1:200
<b>IF/ICC</b>	1:50 - 1:200
<b>ChIP</b>	5µg antibody for 10µg-15µg of Chromatin
<b>ChIP-seq</b>	1:50 - 1:100
<b>CUT&amp;Tag</b>	10 <sup>5</sup> cells /1 µg

## Contact

☎	400-999-6126
✉	cn.market@abclonal.com.cn
🌐	www.abclonal.com.cn

## Immunogen Information

**Gene ID**

5430

**Swiss Prot**

P24928

**Immunogen**

A phospho specific peptide corresponding to residues surrounding S2 of human POLR2A CTD repeat YSPTSPS.

**Synonyms**

RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; NEDHIB; RpILS; hsRPB1; hRPB220; Phospho-POLR2A CTD-S2

## Product Information

**Source**

Rabbit

**Isotype**

IgG

**Purification**

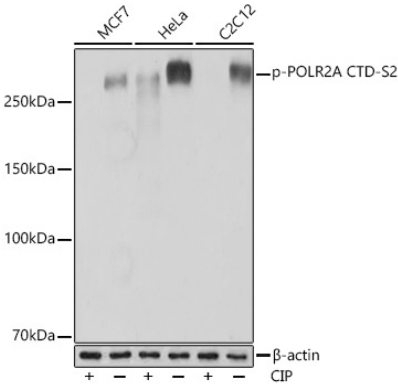
Affinity purification

**Storage**

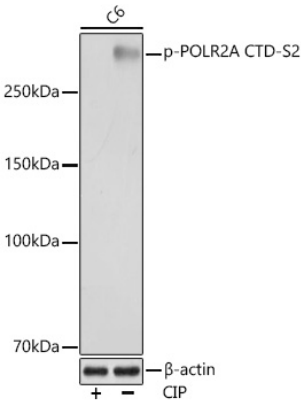
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide, 0.05% BSA, 50% glycerol, pH7.3.

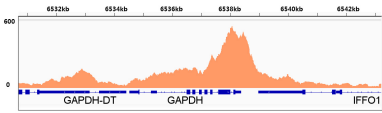
Validation Data



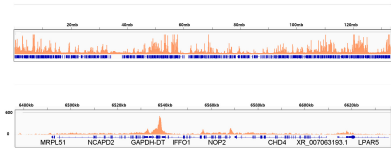
Western blot analysis of various lysates using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at 1:1000 dilution. MCF7 cells and HeLa cells and C2C12 cells were treated by CIP(20uL/400ul) at 37°C for 1 hour. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 10s.



Western blot analysis of lysates from C6 cells, using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at 1:1000 dilution. C6 cells were treated by CIP(20uL/400ul) at 37°C for 1 hour. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 1min.

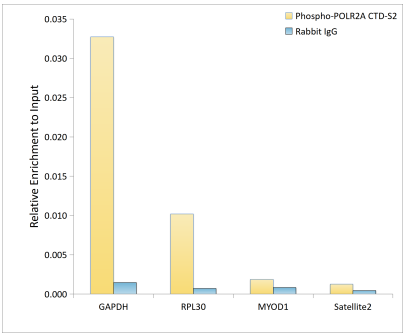


Chromatin immunoprecipitations were performed with cross-linked chromatin from 293F cells and Phospho-POLR2A-S2 (AP0996). The ChIP sequencing results indicate the enrichment pattern of Phospho-POLR2A-S2 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

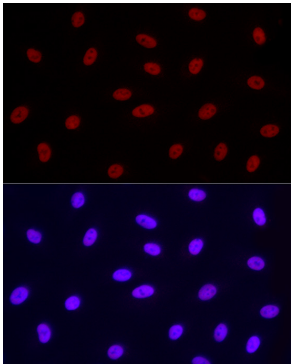


Chromatin immunoprecipitations were performed with cross-linked chromatin from 293F cells and Phospho-POLR2A-S2 (AP0996). The ChIP sequencing results indicate the enrichment pattern of Phospho-POLR2A-S2 in selected genomic region and representative gene loci (GAPDH), as shown in figure.

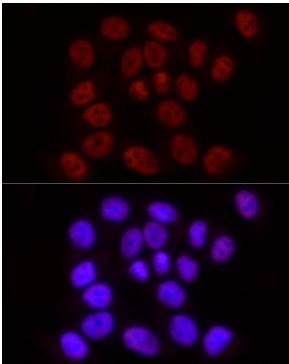
Validation Data



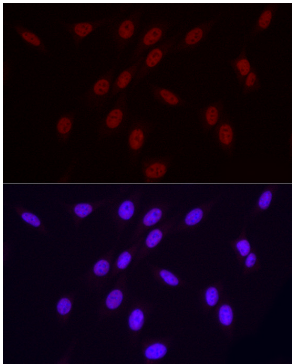
Chromatin immunoprecipitation analysis of extracts of 293F cells, using Phospho-POLR2A-S2 antibody (AP0996) and rabbit IgG. The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



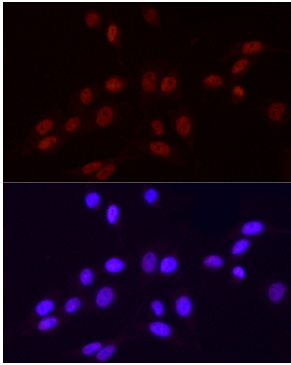
Immunofluorescence analysis of A-549 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



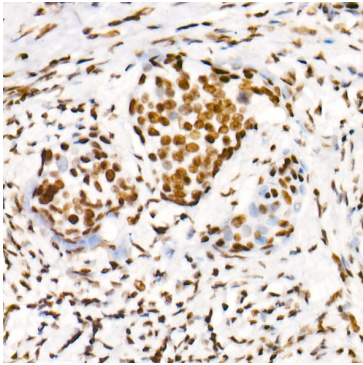
Immunofluorescence analysis of HeLa cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



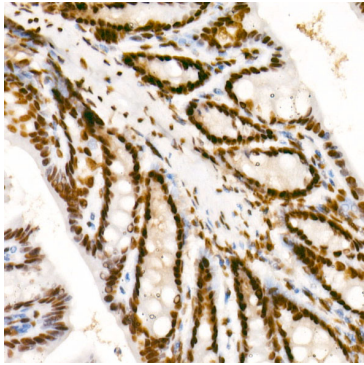
Immunofluorescence analysis of NIH/3T3 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



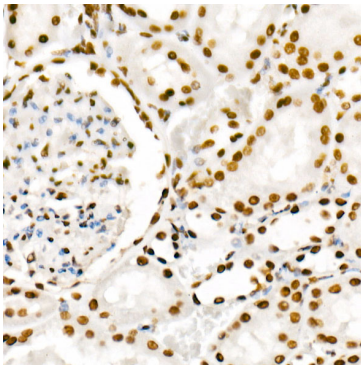
Immunofluorescence analysis of PC-12 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



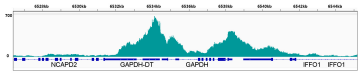
Immunohistochemistry analysis of paraffin-embedded Human cervix cancer using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



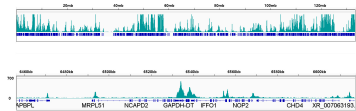
Immunohistochemistry analysis of paraffin-embedded Mouse colon using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



Immunohistochemistry analysis of paraffin-embedded Rat kidney using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



CUT&Tag was performed using the CUT&Tag Assay Kit(pAG-Tn5) forIllumina (RK20265) from 10<sup>5</sup> Hela cells with 1μg 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).



CUT&Tag was performed using the CUT&Tag Assay Kit(pAG-Tn5) forIllumina (RK20265) from 10<sup>5</sup> Hela cells with 1μg 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).