

# Phospho-POLR2A-S2/S5 Rabbit mAb

**Catalog No.: AP1354** Recombinant

## Basic Information

**Observed MW**

270kDa

**Calculated MW**

217kDa

**Category**

Primary antibody

**Applications**

WB,IP,(ELISA),ChIP,CUT&amp;Tag

**Cross-Reactivity**

Human, Rat

**CloneNo number**

ARC54959

## 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** 1:1000 - 1:5000

**IP** 0.5µg-4µg antibody for  
200µg-400µg extracts of  
whole cells

**ELISA** Recommended starting  
concentration is 1 µg/mL.  
Please optimize the  
concentration based on  
your specific assay  
requirements.

**ChIP** 5µg antibody for  
10µg-15µg of Chromatin

**CUT&Tag** 10<sup>5</sup> cells /1 µg

## Contact

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## Immunogen Information

**Gene ID**

5430

**Swiss Prot**

P24928

**Immunogen**

A phospho specific peptide corresponding to residues surrounding S2/S5 of human POLR2A.

**Synonyms**

RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; NEDHIB; RplILS; hsRPB1; hRPB220; Phospho-POLR2A-S2/S5

## Product Information

**Source**

Rabbit

**Isotype**

IgG

**Purification**

Affinity purification

**Storage**

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

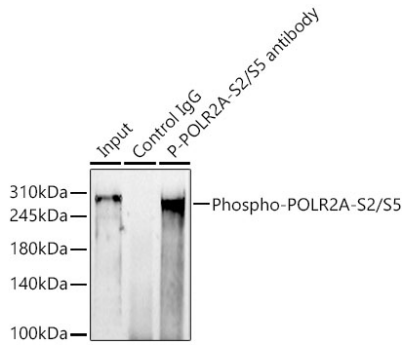
Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.



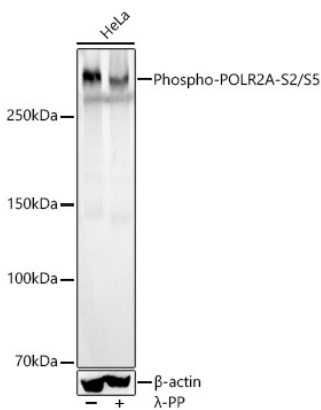
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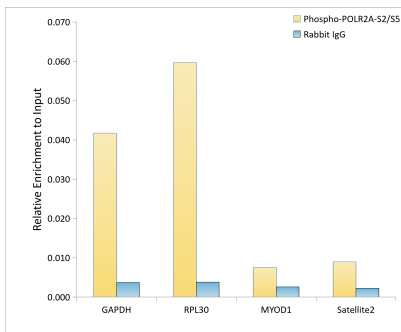
## Validation Data



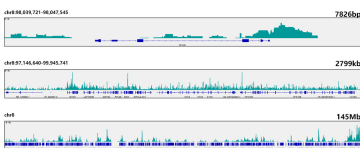
Immunoprecipitation analysis of 300  $\mu$ g extracts of HeLa cells using 3  $\mu$ g Phospho-POLR2A-S2/S5 Rabbit mAb (AP1354). Western blot was performed from the immunoprecipitate using Phospho-POLR2A-S2/S5 antibody (AP1354) at a dilution of 1:2000.



Western blot analysis of various lysates, using Phospho-POLR2A-S2/S5 Rabbit mAb (AP1354) at 1:2000 dilution. HeLa cells were treated by  $\lambda$ -PP mixed solution (1 $\mu$ l) at 30°C for 30 minutes. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25 $\mu$ g per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 4s.



Chromatin immunoprecipitation analysis of extracts of HeLa cells, using Phospho-POLR2A-S2/S5 Rabbit mAb (AP1354) 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.



CUT&Tag was performed using the CUT&Tag

## Validation Data

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Assay Kit (pAG-Tn5) for Illumina(RK20265) from  $10^5$  K562 cells with 1  $\mu$ g Phospho-POLR2A-S2/S5 Rabbit mAb (AP1354), along with a Goat Anti-Rabbit IgG(H+L). The CUT&Tag results indicate the enrichment pattern of Phospho-POLR2A-S2/S5 in representative gene loci (RPL30), as shown in figure.