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Phospho-POLR2A CTD-S2 Rabbit mAb

Catalog No.: AP0996 Recombinant 2 Publications

Basic Information

Observed MW
270 kDa

Calculated MW
217 kDa

Category
Primary antibody

Applications
WB,IP,IF/ICC,IHC-P,ChIP,ChIP-seq,CUT&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
IP	0.5 μg - 4 μg antibody for 200 μg - 500 μg extracts of whole cells
IF/ICC	1:200 - 1:800
IHC-P	1:50 - 1:200
ChIP	5μg antibody for 10μg-15μg of Chromatin
ChIP-seq	1:50 - 1:100
CUT&Tag	10^5 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; RpIILS; hsRPB1; hRPB220; Phospho-POLR2A CTD-S2

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. 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

400-999-6126

cn.market@abclonal.com.cn

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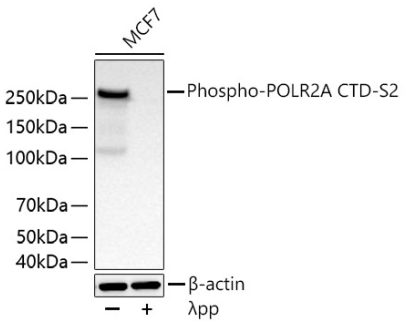
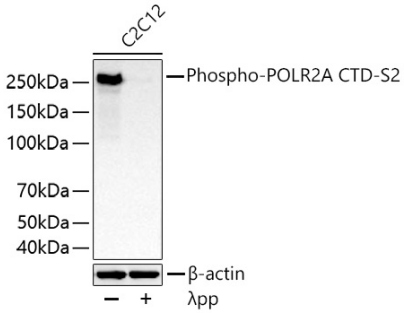
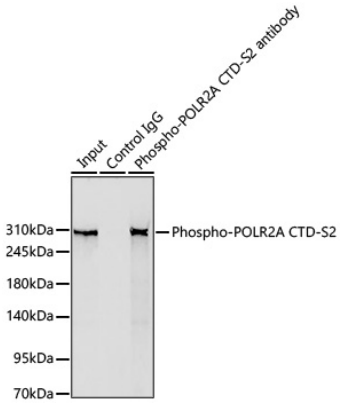
Validation Data



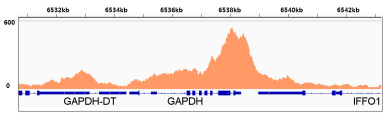
Western blot analysis of lysates from MCF7 cells using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at 1:5000 dilution incubated overnight at 4℃. MCF7 cells were treated with λpp (2 U/ul) at 30℃ for 1 hours.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 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℃. C2C12 cells were treated with λpp (2 U/ul) at 30℃ 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.

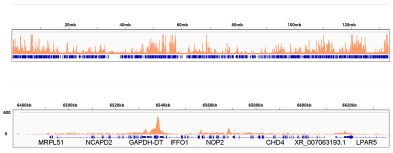


Immunoprecipitation of Phospho-POLR2A-S2 from 300 µg extracts of 293T cells was performed using 3 µg of Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996). Rabbit IgG isotype control (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1X reducing Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using Phospho-POLR2A-S2 Rabbit mAb (AP0996) at a dilution of 1:1000.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 293F cells and Phospho-POLR2A CTD-S2 Rabbit mAb (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



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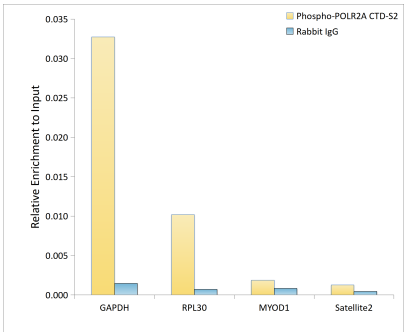
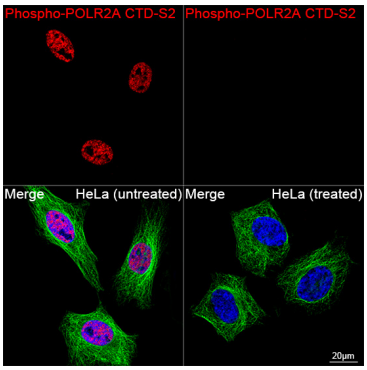
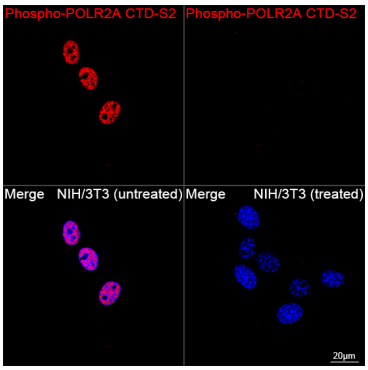


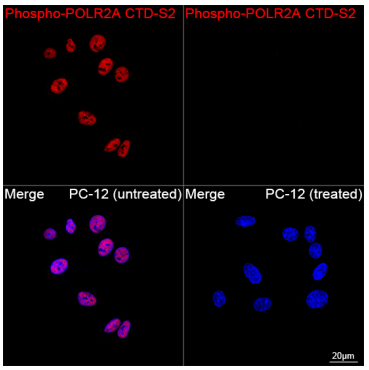
Chromatin immunoprecipitation analysis of extracts of 293F cells, using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) and rabbit IgG.The amount of immunoprecipitated DNA was checked by quantitative PCR. Histogram was constructed by the ratios of the immunoprecipitated DNA to the input.



Confocal imaging of HeLa cells (untreated) and HeLa cells (treated with λPP) using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

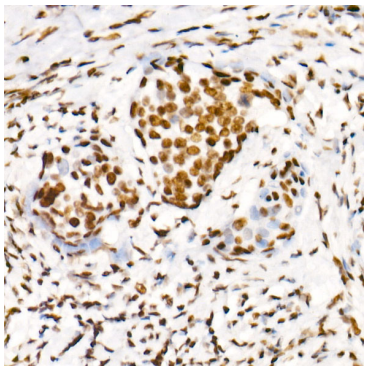


Confocal imaging of NIH/3T3 cells (untreated) and NIH/3T3 cells (treated with λPP) using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.

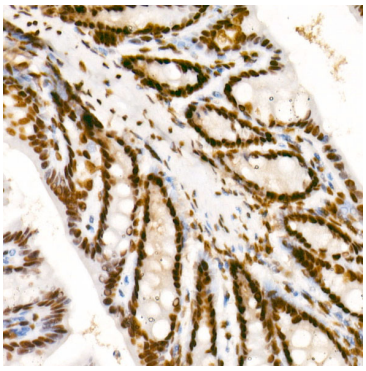


Confocal imaging of PC-12 cells (untreated) and PC-12 cells (treated with λPP) using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.

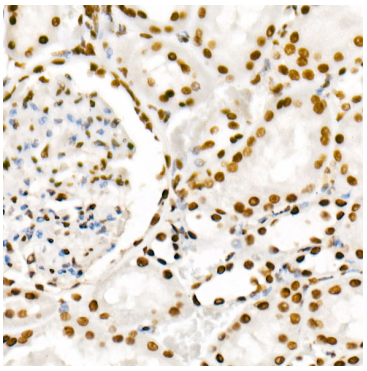
Validation Data



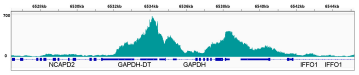
Immunohistochemistry analysis of paraffin-embedded Human cervix cancer using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



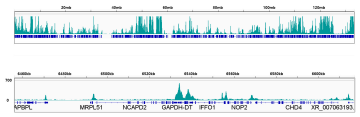
Immunohistochemistry analysis of paraffin-embedded Mouse colon using Phospho-POLR2A CTD-S2 Rabbit mAb (AP0996) at dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



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) forIllumina (RK20265) from 10^5 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).



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