Product Datasheet

Phospho-POLR2A (S5) Rabbit mAb

Catalog No: #13431

Package Size: #13431-1 50ul #13431-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

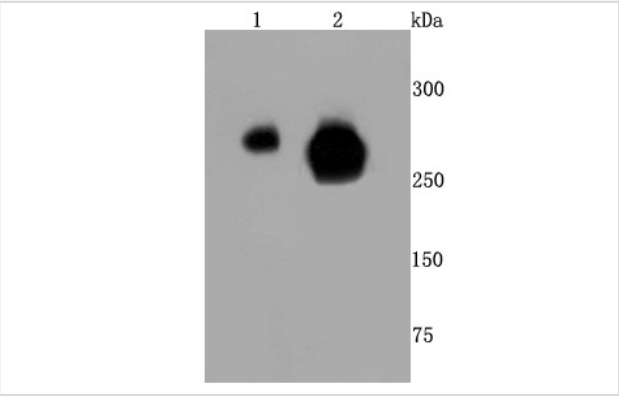
Description

Product Name	Phospho-POLR2A (S5) Rabbit mAb
Host Species	Rabbit
Clonality	Monoclonal
Clone No.	JM51-21
Purification	ProA affinity purified
Applications	WB, IP, ICC/IF, IHC, FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Ser5 of human POLR2A.
Other Names	DNA directed RNA polymerase II A antibody DNA-directed RNA polymerase II largest subunit RNA polymerase II 220 kd subunit antibody DNA-directed RNA polymerase II subunit A antibody DNA-directed RNA polymerase II subunit RPB1 antibody DNA-directed RNA polymerase III largest subunit antibody hRPB220 antibody hsRPB1 antibody POLR2 antibody Polr2a antibody POLRA antibody Polymerase (RNA) II (DNA directed) polypeptide A 220kDa antibody Polymerase (RNA) II (DNA directed) polypeptide A antibody RNA polymerase II subunit B1 antibody RNA-directed RNA polymerase II subunit RPB1 antibody RPB1 antibody RPB1_HUMAN antibody RPBh1 antibody RpIILS antibody RPO2 antibody RPOL2 antibody
Accession No.	Swiss-Prot#:P24928
Uniprot	P24928
GeneID	5430;
Calculated MW	250 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

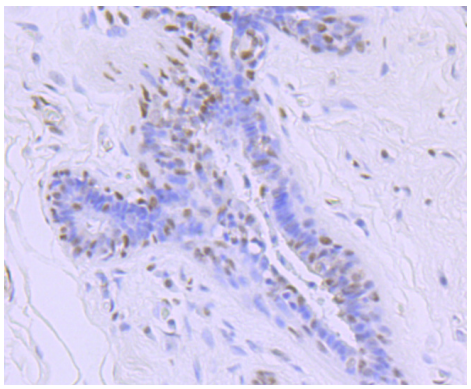
Application Details

WB: 1:500-1:2,000 IHC: 1:50-1:200 ICC: 1:100-1:500FC: 1:50-1:100

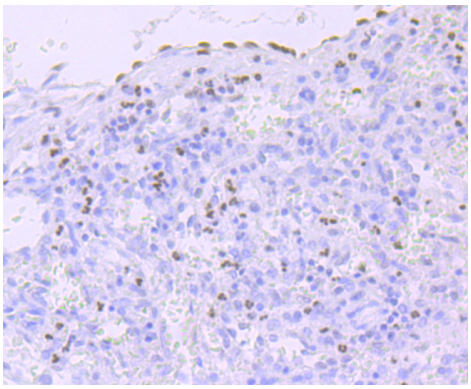
Images



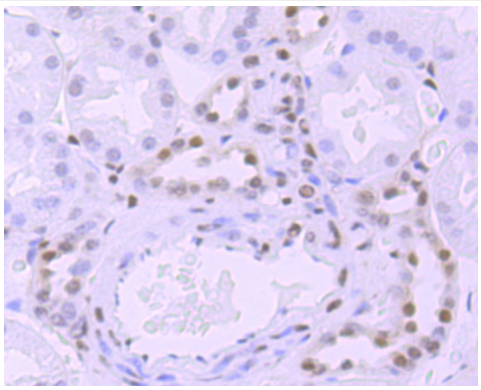
Western blot analysis of Phospho-POLR2A (S5) on different cells lysates using anti- Phospho-POLR2A (S5) antibody at 1/500 dilution. Positive controlΩ½oΩ½
Line 1: Hela
Line 2: MCF-7



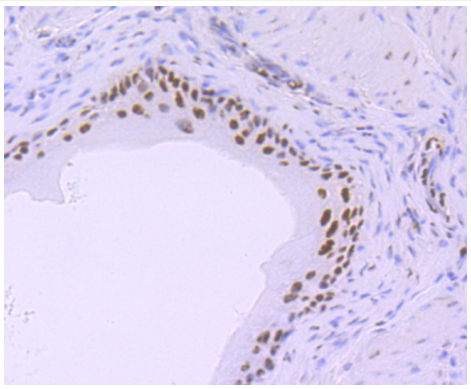
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue using anti- Phospho-POLR2A (S5) antibody. Counter stained with hematoxylin.



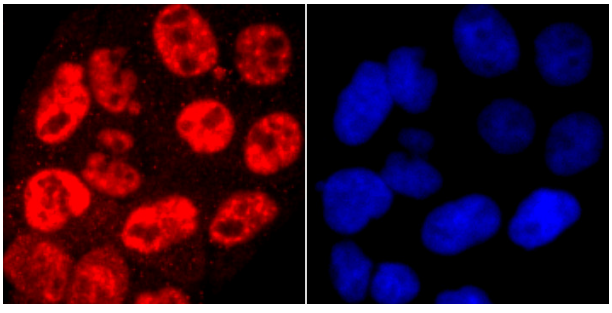
Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti- Phospho-POLR2A (S5) antibody. Counter stained with hematoxylin.



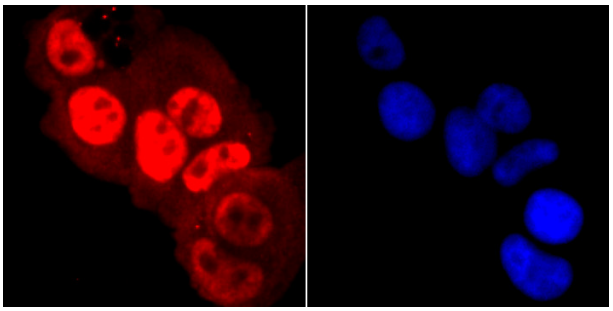
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti- Phospho-POLR2A (S5) antibody. Counter stained with hematoxylin.



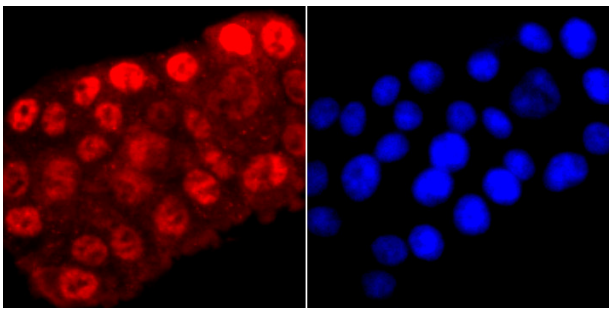
Immunohistochemical analysis of paraffin-embedded mouse bladder tissue using anti- Phospho-POLR2A (S5) antibody. Counter stained with hematoxylin.



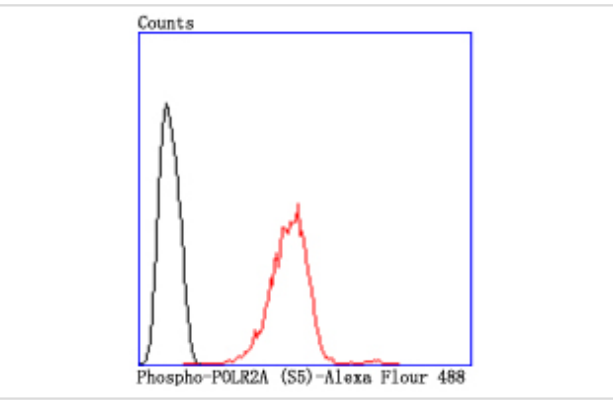
ICC staining Phospho-POLR2A (S5) in Hela cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Phospho-POLR2A (S5) in MCF-7 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Phospho-POLR2A (S5) in PC-12 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of Hela cells with Phospho-POLR2A (S5) antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

Background

DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic component of RNA polymerase II which synthesizes mRNA precursors and many functional non-coding RNAs. Forms the polymerase active center together with the second largest subunit. Pol II is the central component of the basal RNA polymerase II transcription machinery. It is composed of mobile elements that move relative to each other. RPB1 is part of the core element with the central large cleft, the clamp element that moves to open and close the cleft and the jaws that are thought to grab the incoming DNA template. At the start of transcription, a single-stranded DNA template strand of the promoter is positioned within the central active site cleft of Pol II. A bridging helix emanates from RPB1 and crosses the cleft near the catalytic site and is thought to promote translocation of Pol II by acting as a ratchet that moves the RNA-DNA hybrid through the active site by switching from straight to bent conformations at each step of nucleotide addition. During transcription elongation, Pol II moves on the template as the transcript elongates. Elongation is influenced by the phosphorylation status of the C-terminal domain (CTD) of Pol II largest subunit (RPB1), which serves as a platform for assembly of factors that regulate transcription initiation, elongation, termination and mRNA processing. Acts as an RNA-dependent RNA polymerase when associated with small delta antigen of Hepatitis delta virus, acting both as a replicate and transcriptase for the viral RNA circular genome.

References

Note: This product is for in vitro research use only