

POLR2A (Phospho-S5) Rabbit mAb

Catalog No: #13431

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

Description

Product Name	POLR2A (Phospho-S5) Rabbit mAb
Host Species	Rabbit
Clonality	Monoclonal
Clone No.	JM51-21
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Ser5 of human POLR2A.
Conjugates	Unconjugated
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 RpIIIS antibody RPO2 antibody RPOL2 antibody
Accession No.	Swiss-Prot#:P24928
Calculated MW	Predicted band size: 217 kDa
SDS-PAGE MW	Observed band size: 260 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

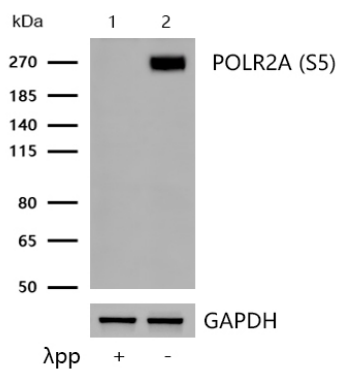
Application Details

WB: 1:500-1:2000

ICC/IF: 1:50-1:200

IHC: 1:50-1:200

Images



All lanes : POLR2A (Phospho-S5) Rabbit mAb at 1/1k dilution

Lane 1 : HeLa whole cell lysates

Lane 2 : HeLa whole cell lysates treated with λpp for 1 hour

Lysates/proteins at 20 µg per lane.

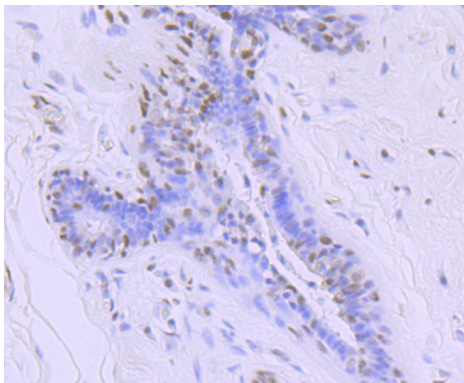
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) at 1/20000 dilution

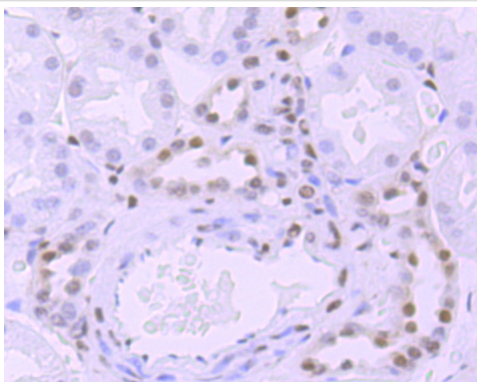
Predicted band size: 217 kDa

Observed band size: 260 kDa

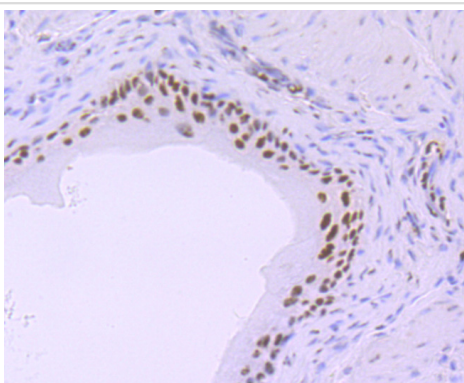
Exposure time: 10 seconds



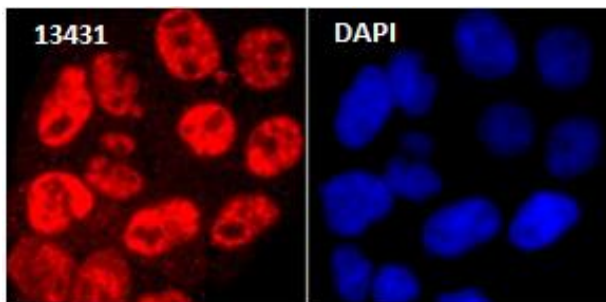
Formalin-fixed, paraffin-embedded human breast cancer tissue stained for POLR2A (Phospho-S5) using 13431 at 1/100 dilution in immunohistochemical analysis.



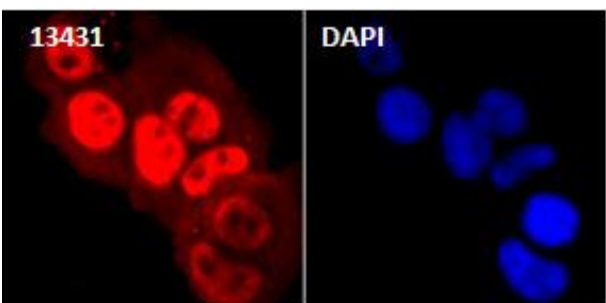
Formalin-fixed, paraffin-embedded human kidney tissue stained for POLR2A (Phospho-S5) using 13431 at 1/100 dilution in immunohistochemical analysis.



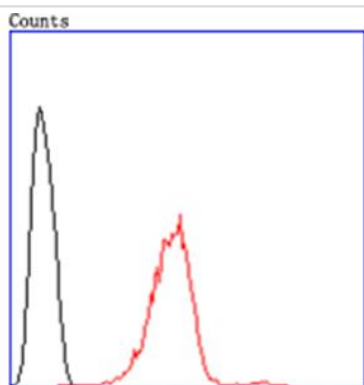
Formalin-fixed, paraffin-embedded human mouse bladder tissue stained for POLR2A (Phospho-S5) using 13431 at 1/100 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence POLR2A (Phospho-S5) antibody (13431)
 ICC/IF staining of POLR2A (Phospho-S5) in Hela cells. Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100.
 Samples were incubated with 13431 at a working dilution of 1/100. The secondary antibody was Alexa FluorB 647 goat anti rabbit, used at a dilution of 1/500.
 Nuclei were counterstained with DAPI.



Immunocytochemistry/ Immunofluorescence POLR2A (Phospho-S5) antibody (13431)
 ICC/IF staining of POLR2A (Phospho-S5) in MCF-7 cells. Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100.
 Samples were incubated with 13431 at a working dilution of 1/100. The secondary antibody was Alexa FluorB 647 goat anti rabbit, used at a dilution of 1/500.
 Nuclei were counterstained with DAPI.



Flow Cytometry (Intracellular) POLR2A (Phospho-S5) antibody (13431)
 Flow cytometric analysis of Hela cells with POLR2A (Phospho-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 and is not intended for use in humans or animals.