Datasheet for ABIN7150422

anti-POLR2A/RPB1 antibody (AA 76-298)

3 Images

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Overview

Quantity:	100 µL
Target:	POLR2A/RPB1 (POLR2A)
Binding Specificity:	AA 76-298
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This POLR2A/RPB1 antibody is un-conjugated
Application:	Immunofluorescence (IF), Immunohistochemistry (IHC), ELISA

Product Details

Immunogen:	Recombinant Human DNA-directed RNA polymerase II subunit RPB1 protein (76-298AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	POLR2A/RPB1 (POLR2A)
Alternative Name:	POLR2A (POLR2A Products)
Background:	Background: DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic component of

Target Details

	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. Regulation of gene expression levels depends on the balance between methylation and acetylation levels of tha CTD-lysines (By similarity). Initiation or early elongation steps of transcription of growth-factors-induced immediate early genes are regulated by the acetylation status of the CTD (PubMed:24207025). Methylation and dimethylation have a repressive effect on target genes expression (By similarity). Aliases: 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 220 kDa 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
UniProt:	P24928
Pathways:	Regulatory RNA Pathways

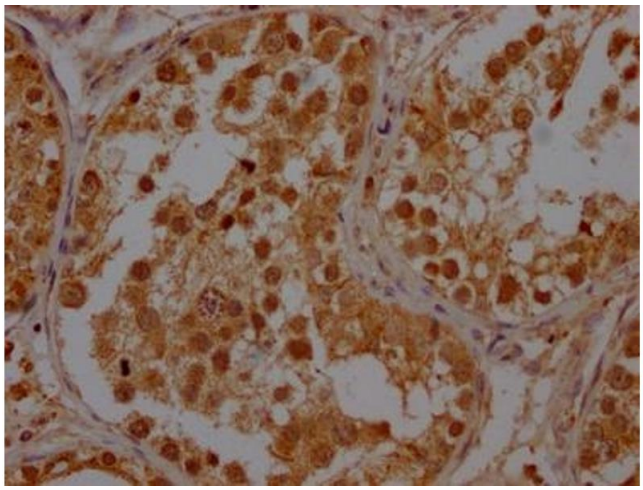
Application Details

Application Notes:	Recommended dilution: IHC:1:200-1:500, IF:1:100-1:500,
Restrictions:	For Research Use only

Handling

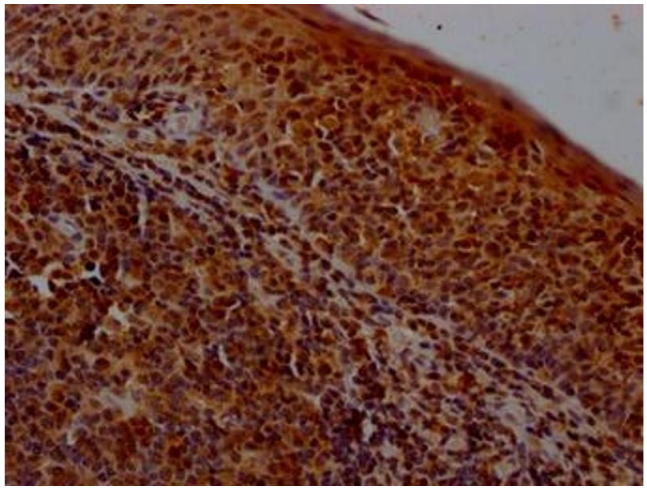
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



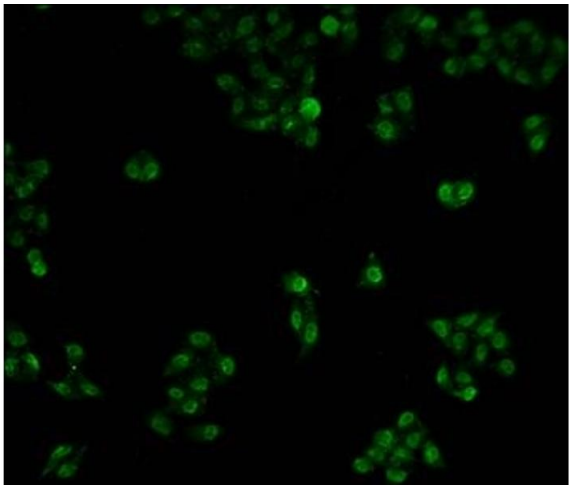
Immunohistochemistry

Image 1. IHC image of ABIN7150422 diluted at 1:400 and staining in paraffin-embedded human testis tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05 % DAB.



Immunohistochemistry

Image 2. IHC image of ABIN7150422 diluted at 1:400 and staining in paraffin-embedded human tonsil tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05 % DAB.



Immunofluorescence

Image 3. Immunofluorescence staining of Hela cells with ABIN7150422 at 1:100, counter-stained with DAPI. The cells were fixed in 4 % formaldehyde and blocked in 10 % normal Goat Serum. The cells were then incubated with the antibody overnight at 4 °C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).

