Datasheet for ABIN7127725

Recombinant anti-POLR2A/RPB1 antibody (pSer2)

4 Images

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Overview

Quantity:	100 µL
Target:	POLR2A/RPB1 (POLR2A)
Binding Specificity:	pSer2
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This POLR2A/RPB1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP)

Product Details

Immunogen:	A synthesized peptide derived from human Phospho-POLR2A (S2)
Clone:	2G1
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Affinity-chromatography

Target Details

Target:	POLR2A/RPB1 (POLR2A)

Target Details

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 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 subunit RPB1, RNA polymerase II subunit B1, DNA-directed RNA polymerase II subunit A, DNA-directed RNA polymerase III largest subunit, RNA-directed RNA polymerase II subunit RPB1, POLR2A, POLR2
UniProt:	P24928
Pathways:	Regulatory RNA Pathways

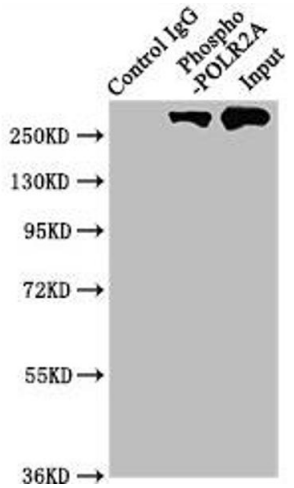
Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200, IP:1:200-1:1000,
Restrictions:	For Research Use only

Handling

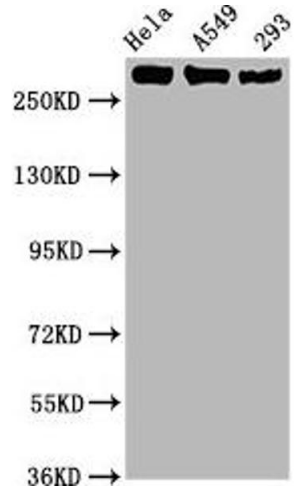
Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



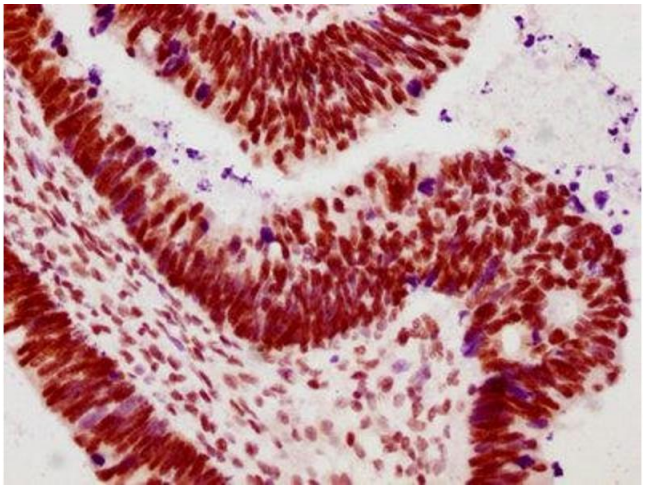
Western Blotting

Image 1. Immunoprecipitating Phospho-POLR2A in Hela whole cell lysate Lane 1: Rabbit control IgG(1 µg)instead of ABIN7127725 in Hela whole cell lysate. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) Lane 2: ABIN7127725(3 µg)+ Hela whole cell lysate(1 mg) Lane 3: Hela whole cell lysate (20 µg)



Western Blotting

Image 2. Western Blot Positive WB detected in Hela whole cell lysate,A549 whole cell lysate,293 whole cell lysate All lanes Phospho-POLR2A antibody at 1.02 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 270 KDa Observed band size: 270 KDa



Immunohistochemistry

Image 3. IHC image of ABIN7127725 diluted at 1:100 and staining in paraffin-embedded human ovarian cancer 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 biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Please check the product details page for more images. Overall 4 images are available for ABIN7127725.