Data Sheet (Cat.No.TMAB-12271)

Anti-Phospho-RNA polymerase II CTD repeat YSPTSPS (Ser5) Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Mouse,Rat,Dog,Cow,Rabbit)
Molecular Weight:	Theoretical: 240 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Tissue/cell: human laryngo carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37℃ for 20 min; Incubation: Anti-RNA polymerase II CTD repeat YSPTSPS (phospho S5) Polyclonal Antibody, Unconjugated (TMAB-12271) 1: 200, overnight at 4℃, followed by conjugation to the secondary antibody and DAB staining 2. Blank control: Hela. Primary Antibody (green line): Rabbit Anti-RNA polymerase II CTD repeat YSPTSPS antibody (TMAB-12271) Dilution: 1 μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-AF647 Dilution: 1 μg /test. Protocol The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at -20℃. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.
Application:	IHC-P,IHC-Fr,IF,FCM
Recommended	IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1μg/Test

Properties

Stability & Storage:	Store at 2℃-8℃ for 1 month. Store at -20℃ or -80℃ for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated Synthesised phosphopeptide: human RNA polymerase II CTD around the phosphorylation site of Ser5
Antigen Species:	Human
Gene ID:	5430
Uniprot ID:	P24928

Research 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 a 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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481