兔抗 POLR2A 多克隆抗体

中文名称： 兔抗 POLR2A 多克隆抗体

英文名称： Anti-POLR2A rabbit polyclonal antibody

别　　名： RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; RpIILS; hsRPB1; hRPB220

相关类别： 一抗

储　　存： 冷冻（-20℃） 避光

宿　　主： Rabbit

抗　　原： POLR2A

反应种属： Human, Mouse, Rat

标 记 物： Unconjugate

克隆类型： rabbit polyclonal

技术规格

Background:	RNA polymerase II (RNAPII) is a large multi-protein complex that functions as a DNA-dependent RNA polymerase, catalyzing the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. The largest subunit, RNAPII subunit B1 (Rpb1), also known as RNAPII subunit A (POLR2A), contains a unique heptapeptide sequence (Tyr1,Ser2,Pro3,Thr4,Ser5,Pro6,Ser7), which is repeated up to 52 times in the carboxy-terminal domain (CTD) of the protein. This CTD heptapeptide repeat is subject to multiple post-translational modifications, which dictate the functiona

	l state of the polymerase complex. Phosphorylation of the CTD during the active transcription cycle integrates transcri ption with chromatin remodeling and nascent RNA process ing by regulating the recruitment of chromatin modifying enzymes and RNA processing proteins to the transcribed g ene. During transcription initiation, RNAPII contains a hypo phosphorylated CTD and is recruited to gene promoters th rough interactions with DNA-bound transcription factors an d the Mediator complex. The escape of RNAPII from gene promoters requires phosphorylation at Ser5 by CDK7, the catalytic subunit of transcription factor IIH (TFIIH). Phospho rylation at Ser5 mediates the recruitment of RNA capping enzymes, in addition to histone H3 Lys4 methyltransferases , which function to regulate transcription initiation and chr omatin structure. After promoter escape, RNAPII proceeds down the gene to an intrinsic pause site, where it is halte d by the negative elongation factors NELF and DSIF. At thi s point, RNAPII is unstable and frequently aborts transcript ion and dissociates from the gene. Productive transcription elongation requires phosphorylation at Ser2 by CDK9, the catalytic subunit of the positive transcription elongation fa ctor P-TEFb. Phosphorylation at Ser2 creates a stable trans cription elongation complex and facilitates recruitment of RNA splicing and polyadenylation factors, in addition to hi stone H3 Lys36 methyltransferases, which function to prom ote elongation-compatible chromatin.
Applications:	WB
Name of antibody:	POLR2A
Immunogen:	Fusion protein of human POLR2A
Full name:	polymerase (RNA) II (DNA directed) polypeptide A, 220kDa
Synonyms :	RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; RpIILS; hsRPB1; hRPB220
SwissProt:	P24928
WB Predicted band size:	270 kDa
WB Positive control:	HeLa cells
WB Recommended dilution:	500-2000

mlbio 酶联生物
Good elisakit producers