

**Rpb1 CTD (Phospho Thr4) rabbit pAb**

<b>Catalog No :</b>	YP1474
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB
<b>Target :</b>	Rpb1
<b>Fields :</b>	>>RNA polymerase;>>Huntington disease
<b>Gene Name :</b>	POLR2A POLR2
<b>Protein Name :</b>	Rpb1 CTD (Thr4)
<b>Human Gene Id :</b>	5430
<b>Human Swiss Prot No :</b>	P24928
<b>Mouse Gene Id :</b>	20020
<b>Mouse Swiss Prot No :</b>	P08775
<b>Immunogen :</b>	Synthesized phospho peptide around human Rpb1 CTD (Thr4)
<b>Specificity :</b>	This antibody detects endogenous levels of Human Mouse Rat POLR2A carboxy-terminal domain (CTD) heptapeptide repeat YSPTSPS (phospho-Thr4)
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:1000-2000
<b>Purification :</b>	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
<b>Concentration :</b>	1 mg/ml

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

**Observed Band :** 250kD

**Cell Pathway :** Purine metabolism;Pyrimidine metabolism;RNA polymerase;Huntington's disease;

**Background :** This gene encodes the largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. The product of this gene contains a carboxy terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, this subunit, in combination with several other polymerase subunits, forms the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA. [provided by RefSeq, Jul 2008],

**Function :** catalytic activity:Nucleoside triphosphate + RNA(n) = diphosphate + RNA(n+1).,function: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

**Subcellular Location :** Nucleus . Cytoplasm . Chromosome . Hypophosphorylated form is mainly found in the cytoplasm, while the hyperphosphorylated and active form is nuclear (PubMed:26566685). Co-localizes with kinase SRPK2 and helicase DDX23 at chromatin loci where unscheduled R-loops form (PubMed:28076779)..

**Expression :** Fetal pancreas,Testis,

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