

## Rpb1 Polyclonal Antibody

<b>Catalog No :</b>	YT4173
<b>Reactivity :</b>	Human;Mouse;Rat;Monkey
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Rpb1
<b>Fields :</b>	>>RNA polymerase;>>Huntington disease
<b>Gene Name :</b>	POLR2A
<b>Protein Name :</b>	DNA-directed RNA polymerase II subunit RPB1
<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>	The antiserum was produced against synthesized peptide derived from human POLR2A. AA range:1585-1634
<b>Specificity :</b>	Rpb1 Polyclonal Antibody detects endogenous levels of Rpb1 protein.
<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 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-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],

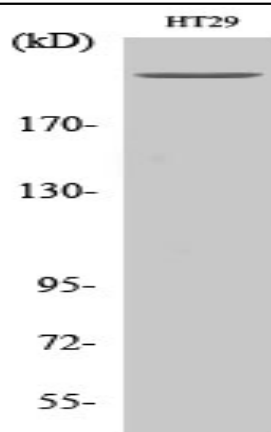
**Function :** catalytic activity:Nucleoside triphosphate + RNA(n) = diphosphate + RNA(n+1).,function:DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic component of RNA polymerase II which synthesizes 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)..

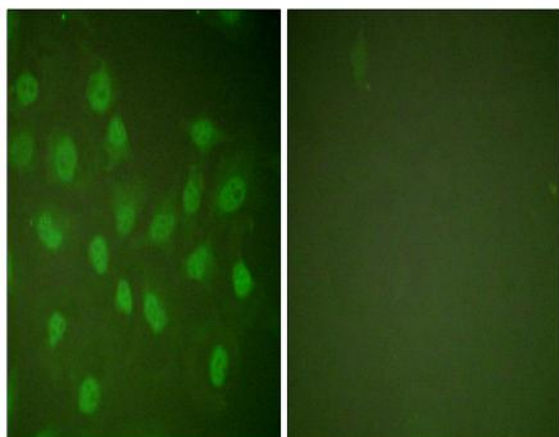
**Expression :** Fetal pancreas,Testis,

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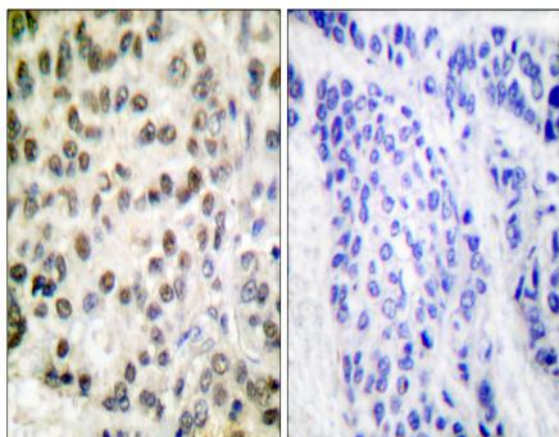
## Products Images



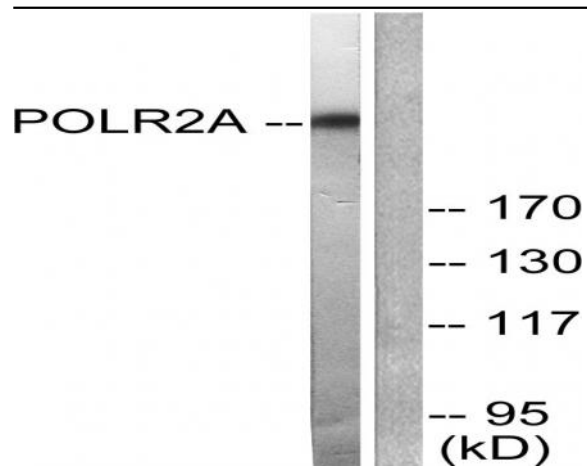
Western Blot analysis of various cells using Rpb1 Polyclonal Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Immunofluorescence analysis of HeLa cells, using POLR2A Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using POLR2A Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, treated with EGF 200ng/ml 30', using POLR2A Antibody. The lane on the right is blocked with the synthesized peptide.