

Product datasheet for **TA336792**

POLR2A Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	Dot, WB
Recommended Dilution:	Western Blot: 1:1000, Dot Blot: 1:1000
Reactivity:	Human, Chicken, Drosophila, Yeast
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to a phosphorylated Threonine (position 4) of the CTD heptad in the human RNA polymerase II protein [UniProt P24928]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	polymerase (RNA) II subunit A
Database Link:	NP_000928 Entrez Gene 5430 Human P24928



[View online »](#)

Background:

RNA polymerase II (RNAPII) is a 12-subunit enzyme which synthesizes all mRNAs as well as several non-coding RNAs in eukaryotic cells thereby playing a central role in cellular functions. RNAPII is a DNA-dependent RNA polymerase enzyme which catalyzes the transcription of DNA into RNA employing four ribonucleoside triphosphates as substrates. The activity of RNAPII transcription machinery is regulated by DNA-binding transcriptional regulators in a gene/cell type-specific manner, whereas general transcription factors act as RNAPII accessory proteins required for the transcription of most class II genes, and the co-activators/co-repressors serve as bridges between DNA-bound factors and the RNAPII machinery, some affecting the organization and/or chemical modification of the chromatin template of RNAPII. RNA polymerase II subunit B1 (POLR2A) is the largest and the catalytic component of RNAPII which forms the polymerase active center together with the second largest subunit and is the central component of the basal RNAPII transcription machinery. It is composed of mobile elements that move relative to each other and POLR2A is the 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.

Synonyms:

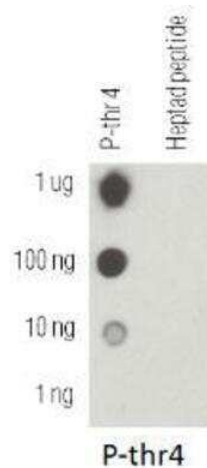
hRPB220; hsRPB1; POLR2; POLRA; RPB1; RPBh1; RpiILS; RPO2; RPOL2

Note:

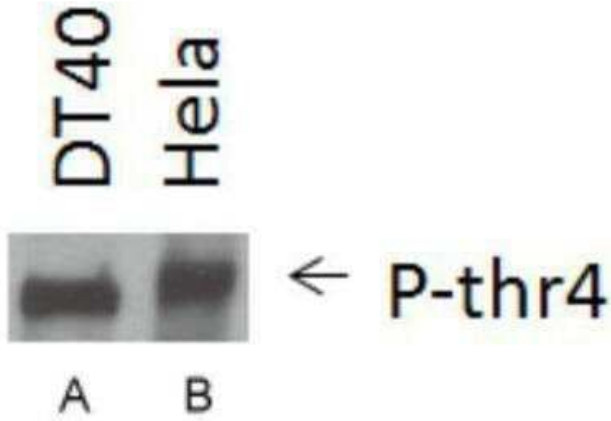
This RNA polymerase II antibody is useful for dot blot and Western blot.

Protein Pathways:

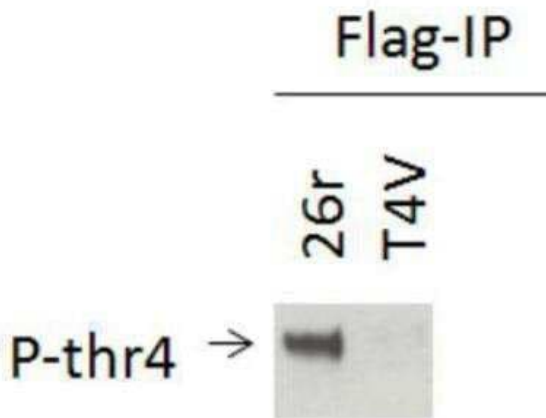
Huntington's disease, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase

Product images:

Dot Blot: RNA Polymerase II/POLR2A [p Thr4] Antibody TA336792 - Dot blot analysis of RNA pol II CTD pT4 using phosphorylated and non-phosphorylated peptides.



Western Blot: RNA Polymerase II/POLR2A [p Thr4] Antibody TA336792 - Analysis of RNA pol II CTD pT4 in A. DT40 cell lysate and B. HeLa cell lysate.



Western Blot: RNA Polymerase II/POLR2A [p Thr4] Antibody TA336792 - Flag-tagged Rpb1 was IP'd with Flag antibody. Western blotting was performed using P-thr4 antibody. 26r: Rpb1 with 26 all-consensus YSPTSPS repeat CTD. T4V: Rpb1 with 30 YSPVSPS repeat CTD.