

Rabbit RNA pol II CTD phospho Ser5 Polyclonal Antibody | anti-Ser5 antibody

RNA pol II CTD phospho Ser5 antibody (pAb)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA59848	Rabbit	Human, Mouse, Wide Range Predicted	Western Blot, Immunofluorescence, Immunocytochemistry, Chromatin Immunoprecipitation, Immunoprecipitation

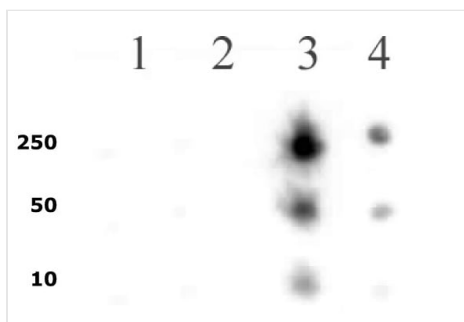
PRODUCT SYNONYMS

RNA pol II CTD phospho Ser5; Polyclonal Antibody; RNA pol II CTD phospho Ser5 antibody (pAb); RNA Polymerase II Carboxy Terminal Domain phosphoserine 5; RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; RplILS; hsRPB1; hRPB220; anti-Ser5 antibody

PRODUCT SPECIFICATIONS

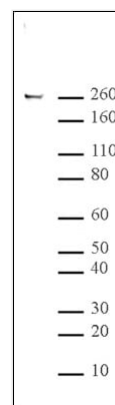
Host	Rabbit
Reactivity	Human, Mouse, Wide Range Predicted
Clonality	Polyclonal
Form/Format	Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic. For your convenience, an IgG version of this antibody that was purified by Protein A Chromatography is also available.
Applicable Applications for anti-Ser5 antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), ChIP (Chromatin immunoprecipitation)
Conjugation	Phosphorylated
Immunogen	This RNA pol II CTD phospho Ser5 antibody was raised against synthetic peptide containing the RNA Pol II heptad repeat consensus sequence phosphorylated at serine 5.
Abs Residue	Ser
Preparation and Storage	Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20 degree C for up to 2 years. Keep all reagents on ice when not in storage.1ug/ul

IMAGES



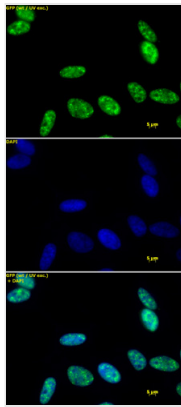
DB (Dot Blot)

RNA pol II CTD phospho Ser5 pAb tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of RNA pol II CTD phospho Ser5 antibody for phospho-Ser5 of the RNA Pol II C-terminal domain heptad repeat. Modified and unmodified peptides were spotted onto PVDF and probed with the antibody at a dilution of 1:1,000. Decreasing amounts of peptide were spotted in each row. Lane 1: Peptide phosphorylated at CTD repeat serine 2. Lane 2: Unmodified CTD repeat serine 2 peptide. Lane 3: Peptide phosphorylated at CTD repeat serine 5. Lane 4: Unmodified CTD repeat serine 5 peptide.



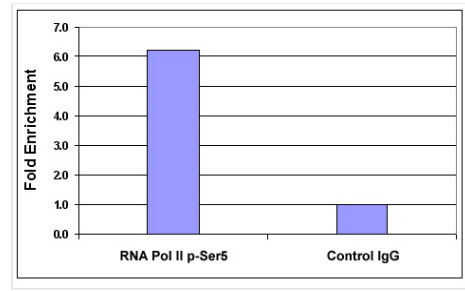
WB (Western Blot)

RNA pol II CTD phospho Ser5 antibody tested by Western blot. Nuclear extract of HeLa cells (20 ug) probed with RNA pol II CTD phospho Ser5 antibody at a 1:2,000 dilution.



IF (Immunofluorescence)

RNA pol II CTD phospho Ser5 antibody tested by immunofluorescence. Top image: HeLa cells stained with RNA pol II CTD phospho Ser5 antibody at a 1:1,000 dilution. Middle: Same cells stained with DAPI. Bottom: Merge of both images.



ChIP (Chromatin Immunoprecipitation)

RNA pol II CTD phospho Ser5 antibody tested by ChIP analysis. Chromatin IP performed using the ChIP-IT Express Kit and HeLa Chromatin (1.5 x 10⁶ cell equivalents per ChIP) using 10 μl of RNA pol II CTD phospho Ser5 antibody or the equivalent amount of rabbit IgG as a negative control. Real time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using a primer pair specific for the PABPC1 gene. Data are presented as Fold Enrichment of the ChIP antibody signal versus the negative control IgG using the ddCT method.

ADDITIONAL INFORMATION

Related Product Information for anti-Ser5 antibody

Short Description: Our RNA pol II CTD phospho Ser5 antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, Immunocytochemistry, Immunofluorescence and Western blot; it has been shown to react with Human and Mouse samples, but it is predicted that it will react with a wide range of sample types.

Background: RNA pol II (RNA polymerase II) is responsible for synthesizing messenger RNA in eukaryotes. RNA pol II 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, RNA pol II, in combination with several other polymerase subunits, form the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA. During the transcription cycle, the CTD of the large subunit of RNA pol II is reversibly phosphorylated. RNA pol II containing unphosphorylated CTD is recruited to the promoter, whereas the hyperphosphorylated CTD form is involved in active transcription. Phosphorylation occurs at two sites within the heptapeptide repeat, at Serine 5 and Serine 2. RNA pol II Serine 5 phosphorylation is confined to promoter regions and is necessary for the initiation of transcription.

Product Categories/Family for anti-Ser5 antibody

[Primary Antibodies](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505939
NCBI GeneID	5430
NCBI Accession #	NP_000928; AB_2793198
NCBI GenBank Nucleotide #	NM_000937
UniProt Accession #	P24928; Q6NX41; A6NN93; B9EH88
Molecular Weight	63,641 Da
NCBI Official Full Name	DNA-directed RNA polymerase II subunit RPB1
NCBI Official Synonym Full Names	polymerase (RNA) II (DNA directed) polypeptide A, 220kDa
NCBI Official Symbol	POLR2A
NCBI Official Synonym Symbols	RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; RplILS; hsRPB1; hRPB220
NCBI Protein Information	DNA-directed RNA polymerase II subunit RPB1; DNA-directed RNA polymerase II largest subunit, RNA polymerase II 220 kd subunit; DNA-directed RNA polymerase II subunit A; DNA-directed RNA polymerase III largest subunit; RNA polymerase II subunit B1; RNA-dir

UniProt Protein Name	DNA-directed RNA polymerase II subunit RPB1
UniProt Gene Name	POLR2A
UniProt Synonym Gene Names	POLR2; RNA polymerase II subunit B1
UniProt Entry Name	RPB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rna-pol-ii-ctd-phospho-ser5-antibody-western-blot-immunofluorescence-immunocytochemistry-chromatin-immunoprecipitation-elisa/59848>