

Mouse anti-Human RNA pol II CTD phospho Ser2 Antibody | anti-Ser2 antibody

AbFlex RNA pol II CTD phospho Ser2 antibody (rAb)

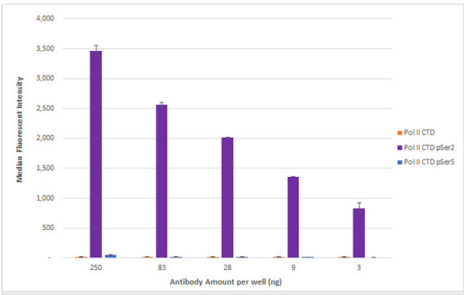
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA60258	Mouse	Human	Western Blot, Immunofluorescence, Immunocytochemistry, ELISA, Chromatin Immunoprecipitation, Immunoprecipitation, Chromatin Immunoprecipitation, Immunoprecipitation

PRODUCT SYNONYMS

RNA pol II CTD phospho Ser2; AbFlex RNA pol II CTD phospho Ser2 antibody (rAb); RPB1; RPO2; POLR2; POLRA; RPBh1; RPOL2; RplLS; hsRPB1; hRPB220; anti-Ser2 antibody

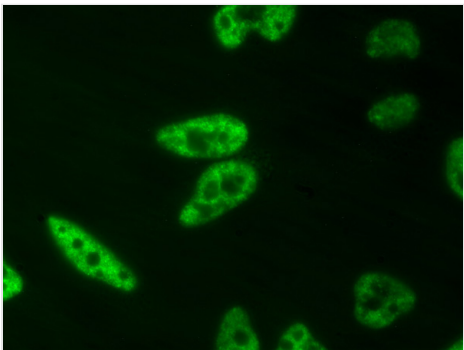
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Isotype	IgG2a
Purity/Purification	Protein A Chromatography
Form/Format	Purified IgG in 140mM Hepes, pH7.5, 70mM NaCl, 32mM NaOAc, 0.035% sodium azide and 30% glycerol.
Concentration	1ug/ul (varies by lot)
Applicable Applications for anti-Ser2 antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA, ChIP (Chromatin immunoprecipitation), ChIP (Chromatin immunoprecipitation)
Antibody Type	Recombinant Antibody
Conjugation	Phosphorylated
Immunogen	This RNA pol II CTD phospho Ser2 antibody was raised against a peptide containing the RNA pol II CTD sequence phosphorylated at serine 2.
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



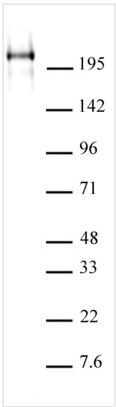
Application Data

AbFlex RNA pol II CTD phospho Ser2 antibody (rAb) tested by Luminex bead-based specificity analysis. Luminex bead-based specificity analysis was used to confirm the specificity of AbFlex™ RNA pol II CTD phospho Ser2 antibody (rAb) antibody for RNA pol II CTD peptides. RNA pol II peptides were conjugated to MagPlex Luminex beads and incubated with various amounts of AbFlex™ RNA pol II CTD phospho Ser2 antibody (rAb). Peptide-bound antibody was detected with anti-mouse IgG-Phycoerythrin and read in a Luminex instrument. Luminex is a registered trademark of Luminex Corporation.



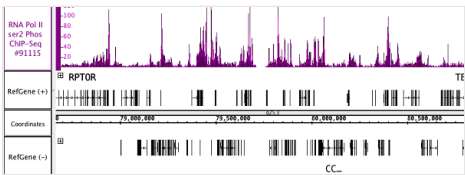
IF (Immunofluorescence)

AbFlex RNA pol II CTD phospho Ser2 antibody (rAb) tested by immunofluorescence. HeLa cell stained with 2ug /mL of AbFlex™ RNA pol II CTD phospho Ser2 antibody (rAb) followed by anti-mouse-IgG-488.



WB (Western Blot)

AbFlex RNA pol II CTD phospho Ser2 antibody (rAb) tested by Western blot. HeLa nuclear extract (20 ug per lane) probed with RNA pol II CTD phospho Ser2 antibody (rAb) (0.5 ug/ml dilution).



ChIP (Chromatin Immunoprecipitation)

AbFlex RNA pol II CTD phospho Ser2 antibody (rAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 30 ug chromatin from an accurate large B-cell lymphoma cell line and 4 ug of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 19 million sequence tags were mapped to identify RNA pol II phospho Ser2 binding. The image shows binding across a region of chromosome 17.

ADDITIONAL INFORMATION

Related Product Information for anti-Ser2 antibody

Short Description: AbFlex antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis-tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. Our AbFlex RNA pol II CTD phospho Ser2 antibody (rAb) was raised in a Mouse host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, ELISA, Immunocytochemistry, Immunofluorescence and Western blot; it has been shown to react with Human samples.

Background: AbFlex antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis-tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. AbFlex RNA pol II CTD phospho Ser2 antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells. 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 2, serine 5 and serine 7. RNA pol II phosphorylated at serine 2 is enriched over the gene body and is associated with transcriptional elongation.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505939
NCBI GeneID	5430
NCBI Accession #	NP_000928; AB_2793780
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.