

Rat anti-Human RNA Pol II CTD Monoclonal Antibody | anti-POLR2A antibody

RNA Pol II CTD (pSer7) antibody | 3D4A12

CATALOG # AAA50442	HOST Rat	REACTIVITY Human	APPLICATIONS Western Blot, Immunofluorescence
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PRODUCT SYNONYMS

RNA Pol II CTD; Monoclonal Antibody; RNA Pol II CTD (pSer7) antibody | 3D4A12; RAT ANTI HUMAN RNA POL II CTD (pSer7); anti-POLR2A antibody

PRODUCT SPECIFICATIONS

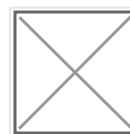
Host	Rat
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	3D4A12
Purity/Purification	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Form/Format	Purified IgG - liquid Phosphate buffered saline 0.035% Sodium Azide (NaN ₃), 30% Glycerol
Concentration	IgG concentration 1.0mg/ml (varies by lot)
Applicable Applications for anti-POLR2A antibody	WB (Western Blot), IF (Immunofluorescence)
Immunogen	A peptide containing the RNA pol II CTD sequence phosphorylated at serine 7
Preparation and Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20 degree C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8 degree C for short term use (up to 4 weeks) and store the remaining aliquots at -20 degree C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use.

IMAGES



WB (Western Blot)

Western blot analysis of HeLa cell nuclear extract (40 ug) probed with RNA pol II CTD (pSer7) antibody, clone 3D4A12 (AAA50442) at a 2 ug/ml dilution.



IF (Immunofluorescence)

Immunofluorescence staining of HeLa cells probed with RNA pol II CTD (pSer7) antibody (AAA50442; left) and DAPI (centre). Image on the right shows images from detection of AAA50442 and DAPI merged together.

ADDITIONAL INFORMATION

Related Product Information for anti-POLR2A antibody	<p>Rat anti Human RNA pol II CTD (pSer7) antibody, clone 3D4A12 recognizes RNA polymerase II, also known as RNAP II and pol II, when phosphorylated at serine 7 of the carboxyl-terminal repeat domain.</p> <p>RNA pol II is a 550 kDa enzyme complex made up of 12 subunits that transcribes DNA into precursors of messenger RNA (mRNA), snRNA, and microRNA (Kornburg, 1999) (Sims et al. 2004). The carboxyl-terminal repeat domain (CTD) of RNA pol II is reversibly phosphorylated in during the transcription cycle (Phatnani and Greenleaf, 2006). Phosphorylation of the CTD of RNA pol II at serine 7 is found on all pol II-transcribed genes in mammalian cells, however, this event is only essential for expression of a sub-class of genes encoding small nuclear (sn) RNAs. It is thought that phosphorylation of the CTD of RNA pol II at serine 7 facilitates transcription of these genes and 3' end processing of the transcripts, through recruitment of the RPAP2 phosphatase and the snRNA gene-specific Integrator complex</p>
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4505939
NCBI GeneID	5430
NCBI Accession #	NP_000928.1
NCBI GenBank Nucleotide #	NM_000937.4
UniProt Accession #	P24928; A6NN93; B9EH88
Molecular Weight	217,176 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; RNA polymerase II subunit B1; DNA-directed RNA polymerase II subunit A; RNA-directed RNA polymerase II subunit RPB1; DNA-directed RNA polymerase III largest subunit; DNA-directed RNA polymerase II largest subun
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.