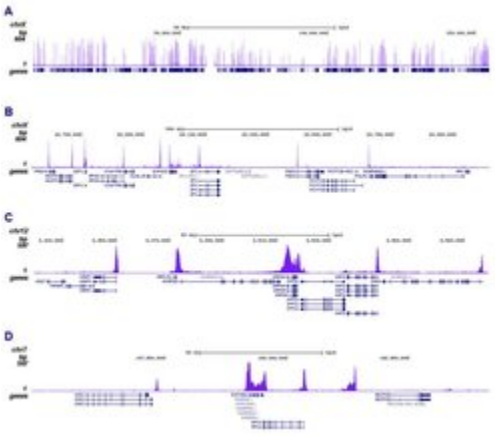
RNA pol II CTD Monoclonal Antibody

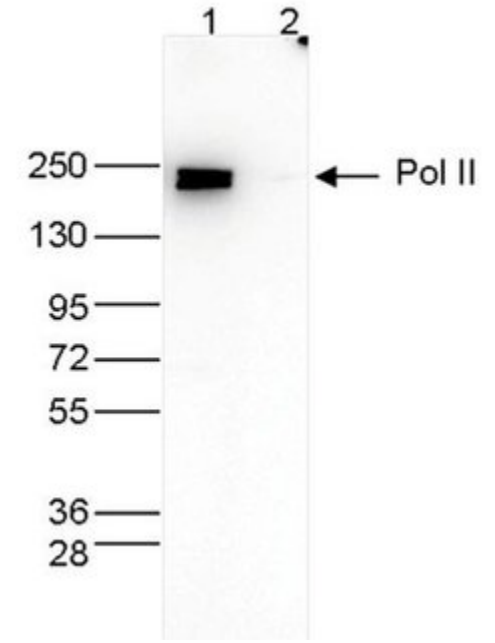
Product Details	
Size	100 µL
Species Reactivity	Human, Mouse, Xenopus
Published Species	Human
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	Raised against the largest subunit of RNA polymerase II of wheat germ and interacts with the highly conserved C-terminal domain of this protein containing the repeat YSPTSPS.
Form	Liquid
Concentration	Lot-Specific
Storage buffer	ascites
Contains	<0.1% sodium azide
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2533882

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500	-
ChIP assay (ChIP)	1-10 µg/1x10^6 cells	1 Publication
ChIP-sequencing (ChIP-Seq)	2 µL/1x10^6 cells	-

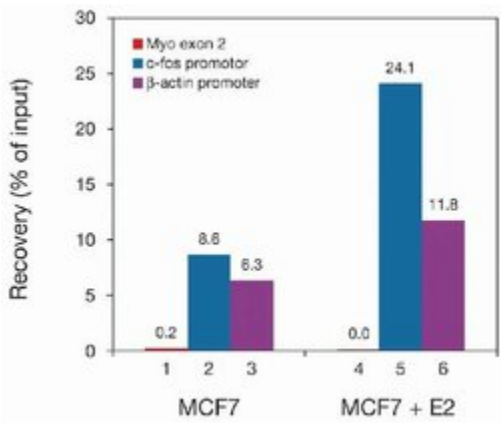
Product Images For RNA pol II CTD Monoclonal Antibody



RNA pol II CTD Antibody (49-1033) in ChIP-seq
ChIP was performed on sheared chromatin from 1 million HeLaS3 cells using 2 µL of the anti-Pol II antibody (Product # 49-1033). The IP'd DNA was subsequently analysed on an Illumina HiSeq. Library preparation, cluster generation and sequencing were performed according to the manufacturer's instructions. The 51 bp tags were aligned to the human genome using the BWA algorithm. The figure shows the enrichment along the complete sequence and a 1 Mb region of the X-chromosome (fig A and B) and in genomic regions of chromosome 12 and 3, surrounding the GAPDH and EIF4A2 positive control genes (fig C and D).



RNA pol II CTD Antibody (49-1033) in WB
Whole cell extracts (40 g) from HeLa cells transfected with Pol II siRNA (lane 2) and from an untransfected control (lane 1) were analysed by Western blot using the anti-Pol II antibody (Product # 49-1033) diluted 1:500 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.



RNA pol II CTD Antibody (49-1033) in ChIP
ChIP assays were performed using the breast carcinoma cell line MCF7 (treated with estradiol (MCF7 + E2) or not treated (MCF7), the anti–Pol II antibody (Product # 49-1033), and optimized PCR primer sets for myoglobin exon 2, c-fos promoter, -actin promoter for qPCR. Each ChIP assay used sheared chromatin from 1 million cells and 2.8 µl of anti-Pol II ascites. Pol II binds to active promoters of protein-coding genes. Primer pairs for the following promoter regions were used: c-fos and -actin. Myoglobin exon 2, which is not a promoter region, was used as negative PCR control. Recoveries (% of input) are shown here above. The percent recovery represents the relative amount of immunoprecipitated DNA compared to input DNA. The recoveries are high using the positive primer pairs c-fos promoter (bars 2 and 5) and -actin promoter (bars 3 and 6), while there are no recoveries using the negative primer pair myoglobin exon 2 (bars 1 and 4). Moreover, recoveries are higher in cells treated with estradiol (MCF7 + E2) compared to recoveries in untreated MCF7 cells as expected.

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1 Reference

ChIP assay (1)

Genes & cancer

The adenoviral E1A N-terminal domain represses MYC transcription in human cancer cells by targeting both p300 and TRRAP and inhibiting MYC promoter acetylation of H3K18 and H4K16.

"49-1033 was used in ChIP assay identify host pathways targeted by viral E1A 1-80 using cancer cells"

Authors: Zhao LJ,Loewenstein PM,Green M

Species
Human
Not Applicable

Dilution
Not Cited
Not Cited

Year
2016