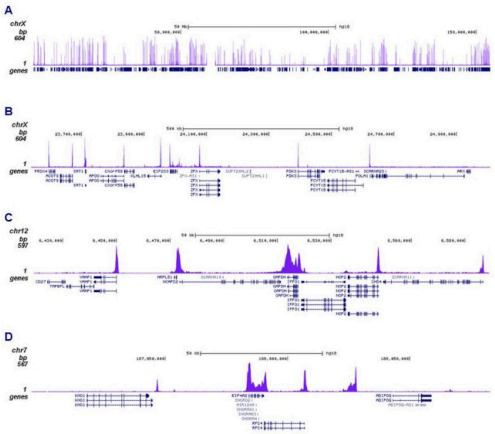
RNA pol II CTD Monoclonal Antibody

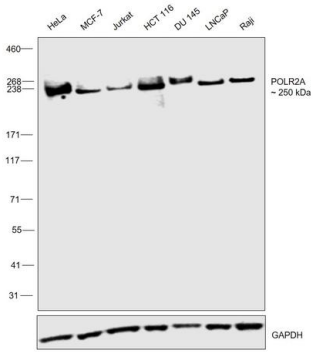
Product Details	
Size	100 µL
Species Reactivity	Human, Mouse, Xenopus
Published Species	Human
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	Raised against the largest subunit of RNA polymerase II of wheat germ and interacts with the highly conserved C-terminal domain of this protein containing the repeat YSPTSPS.
Form	Liquid
Concentration	Conc. Not Determined
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)	1:500-1:1,000	-
Immunocytochemistry (ICC/IF)	1:100	-
ChIP assay (ChIP)	1-10 µL/1x10^6 cells	2 Publications
ChIP-sequencing (ChIP-Seq)	2 µL/1x10^6 cells	-

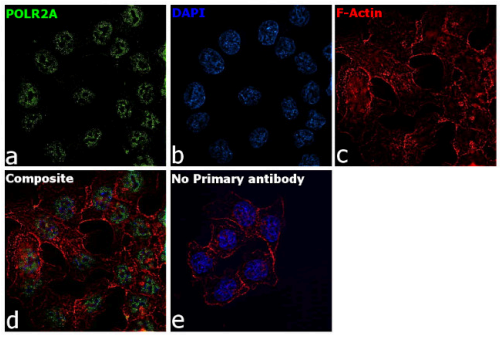
Product Images For RNA pol II CTD Monoclonal Antibody



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
Western blot was performed using Anti-RNA pol II CTD Monoclonal Antibody (Product # 49-1033) and a 250 kDa band corresponding to -RNA pol II was observed across cell lines tested. Nuclear enriched extracts (40 µg lysate) of HeLa (Lane 1), MCF7 (Lane 2), Jurkat (Lane 3), HCT 116 (Lane 4), DU 145 (Lane 5), LNCaP (Lane 6) and Raji (Lane 7) were electrophoresed using NuPAGE™ 3-8% Tris-Acetate Protein Gel (Product # EA0378BOX). Resolved proteins were equilibrated with 20% ethanol and then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177,1: 20000 dilution using the iBright™ FL1500 Imaging System (Product # A44115). Chemiluminescent detection was performed using SuperSignal™ West Pico PLUS Chemiluminescent Substrate (Product # 34580).



RNA pol II CTD Antibody (49-1033) in ICC/IF
Immunofluorescence analysis of RNA pol II CTD Monoclonal Antibody was performed using 70% confluent log phase HCT 116 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with RNA pol II CTD Monoclonal Antibody (Product # 49-1033) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32766), (1: 2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300 dilution). Panel d represents the merged image showing Nuclear localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.

View more figures on thermofisher.com

2 References

ChIP assay (2)

Cell death & disease

Regulatory mechanisms and function of hypoxia-induced long noncoding RNA NDRG1-OT1 in breast cancer cells.

"49-1033 was used in Chromatin immunoprecipitation to reveal novel regulatory mechanisms of NDRG1-OT1 by HIF-1 and upon miR-875-3p. Also, NDRG1-OT1 promoted the malignancy of breast cancer cells and encoded a small peptide. "

Authors: Chao HH,Luo JL,Hsu MH,Chen LH,Lu TP,Tsai MH,Chuang EY,Chuang LL,Lai LC

Year
2022

Species
Human

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

Year
2016

Species
Human