



Anti-RNA polymerase 2, CTD Ser2ph antibody

BACKGROUND

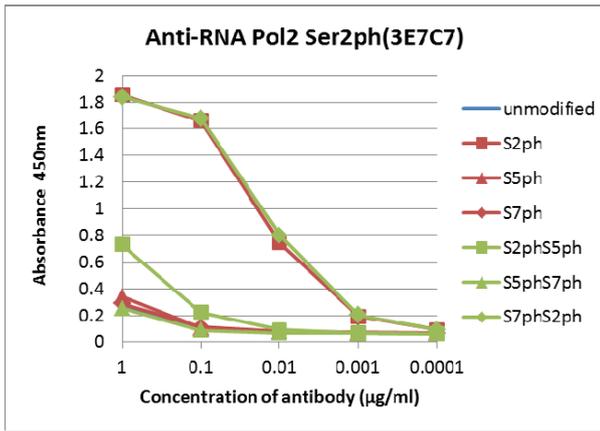
RNA polymerase II (RNAPII) transcribes all protein-coding genes and many non-coding genes, and the activity of RNAPII correlates with the phosphorylation state of RPB1, the large catalytic subunit of RNAPII. RPB1 has an unusual C-terminal domain (CTD) that consists of repeats of the heptapeptide consensus sequence N-Tyr1-Ser2-Pro3-Thr4-Ser5-Pro6-Ser7-C, of which there are 52 copies in mammals. The amino acids in these repeats are potential targets for modification, such as phosphorylation and glycosylation.

Product type	Primary antibody
Immunogen	Synthetic peptide corresponding to Ser2ph of RNA Pol II CTD repeat, SPTSPSY(phS)PTSPSYSPSPS
Host	Rat
Clone number	3E7C7
Isotype	IgG2a, κ
Source	Culture supernatant
Purification	Ion-exchange chromatography
Form	Liquid
Presentation	Purified monoclonal antibody in PBS, 50% Glycerol, 0.05%w/v ProClin300
Concentration	1 mg/mL
Volume	100 μ L
Label	Unlabeled
Specificity	RNA polymerase 2, CTD Ser2ph. Epitope: Phosphorylated Ser2 of CTD repeat
Cross reactivity	Human, Monkey, Mouse, Rat, Hamster Other species have not been tested.
Storage	Store below -20°C (below -70°C for prolonged storage) Aliquot to avoid cycles of freeze/thaw.
Other	Data Link: UniProtKB/Swiss-Prot P24928 * recommended positive controls is mammalian cell

Application notes	Recommended use WB, ICC, ChIP Not tested for other applications. Recommended dilutions Western blotting, 1/2500 (Fig.2) Immunocytochemistry, 1/2500 (Fig.3) Optimal dilutions/concentrations should be determined by the end user.
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References	1) Odawara et al., BMC Genomics. 2011 Oct 20;12:516. PMID: 22011111 * * This antibody is used in ref.1.
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ANTIBODY CHARACTERIZATION



unmodified	SPTSPS	YS	PTS	PS	YSPTSPS
S2ph	SPTSPS	YS ^{ph} PTS	PS	YSPTSPS	
S5ph	SPTSPS	YS	PTS ^{ph} PS	YSPTSPS	
S7ph	SPTSPS	YS	PTS	PS ^{ph} YSPTSPS	
S2phS5ph	SPTSPS	YS ^{ph} PTS ^{ph} PS		YSPTSPS	
S5phS7ph	SPTSPS	YS	PTS ^{ph} PS ^{ph} YSPTSPS		
S7phS2ph	SPTSPS ^{ph} YS ^{ph} PTS		PS	YSPTSPS	

Fig.1 The composition of the CTD peptides and the reactivity of RNA polymerase 2, CTD Ser2ph antibody, 3E7C7.

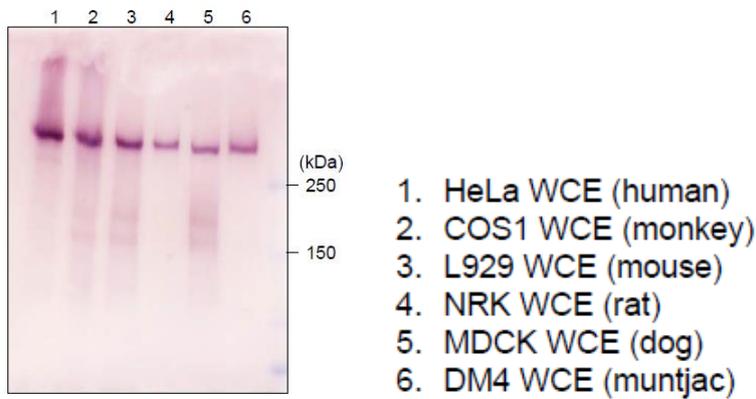


Fig.2 Western blot analysis of the mammalian cells extracts using RNA polymerase 2, CTD Ser2ph antibody, 3E7C7.

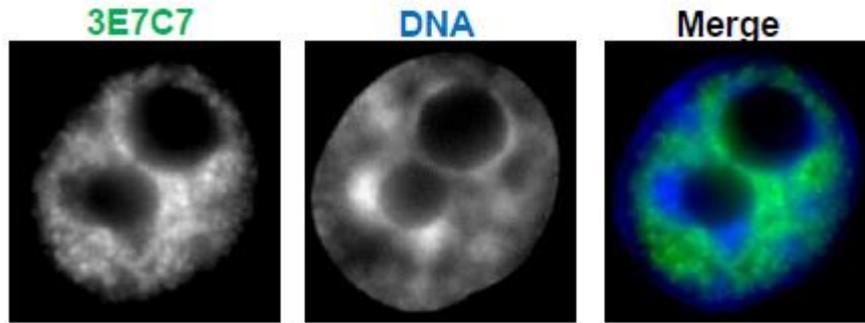


Fig.3 Immunocytochemical analysis of HeLa Cell using RNA polymerase 2, CTD Ser2ph antibody, 3E7C7.

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