

# Anti-RNA polymerase 2, CTD Ser2ph antibody

Clone	Cross reactivity	Application notes	Host	Isotype	Storage
3E7C7	Mammals	WB, ICC, ChIP	Rat	IgG2a, $\kappa$	-20°C

**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.

**Immunogen** Synthetic peptide corresponding to Ser2ph Peptide of RNA Pol II CTD repeat, SPTSPSY(phS)PTSPSYSPSPS

**Host** Rat

**Isotype** IgG2a,  $\kappa$

**Cross reactivity** Mammals

**Specificity** RNA polymerase 2, CTD Ser2ph

**Application notes** Recommended use  
ELISA, WB, ICC, ChIP Not tested for other applications.  
Recommended dilutions  
Western blotting, 1/2500  
Immunocytochemistry, 1/2500

Optional dilutions/concentrations should be determined by the end user.

**Source** Culture Supernatant

**Purification** Ion-exchange chromatography

**Form** Liquid

**Presentation** Purified monoclonal antibody in PBS, 50% Glycerol, 0.05%w/v ProClin300

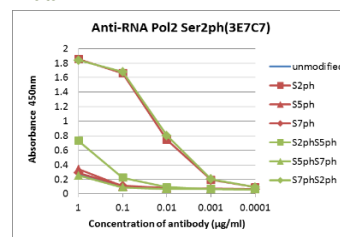
**Concentration** 1 mg/mL

**Volume** 100  $\mu$ L

**Storage** Store below -20°C  
(below -70°C for prolonged storage)  
Aliquot to avoid cycles of freeze/thaw.

**References** 1) Odawara et al., (2011) BMC Genomics. 12, 516  
2) Maehara et al., (2013) Nucleic Acid Research, 41,54-62  
This antibody is used in ref.1 and 2.

## Data



unmodified	SPTSPS	YS	PTS	PS	YSPTSPS
S2ph	SPTSPS	YSph	PTS	PS	YSPTSPS
S5ph	SPTSPS	YS	PTSp	PS	YSPTSPS
S7ph	SPTSPS	YS	PTSp	PSph	YSPTSPS
S2phS5ph	SPTSPS	YSph	PTSp	PS	YSPTSPS
S5phS7ph	SPTSPS	YS	PTSp	PSph	YSPTSPS
S7phS2ph	SPTSPS	YS	PTSp	PSph	YSPTSPS

Fig.1 ELISA analysis  
- RNA polymerase 2, CTD Ser2ph antibody (3E7C7)

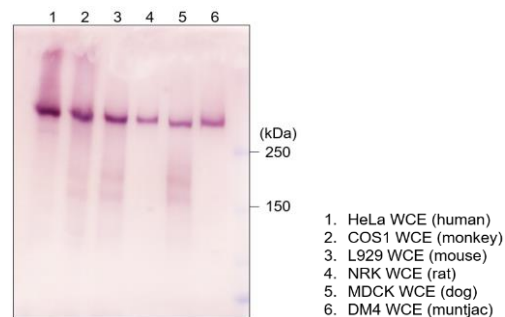


Fig.2 Western blot  
- RNA polymerase 2, CTD Ser2ph antibody (3E7C7)  
the mammalian cell total extracts

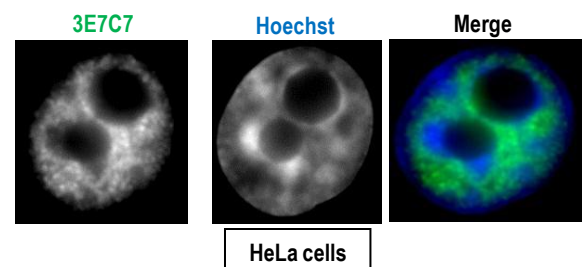


Fig.3 Immunocytochemistry/Immunofluorescence  
- RNA polymerase 2, CTD Ser2ph antibody (3E7C7)  
HeLa cells