



Anti-RNA polymerase 2, CTD Ser5ph 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 Ser5ph of RNA Pol II CTD repeat, SPTSPSYSPT(phS)PSYSPTSPS
Host	Rat
Clone number	1H4B6
Isotype	IgG2b, 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 Ser5ph. Epitope: Phosphorylated Ser5 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)

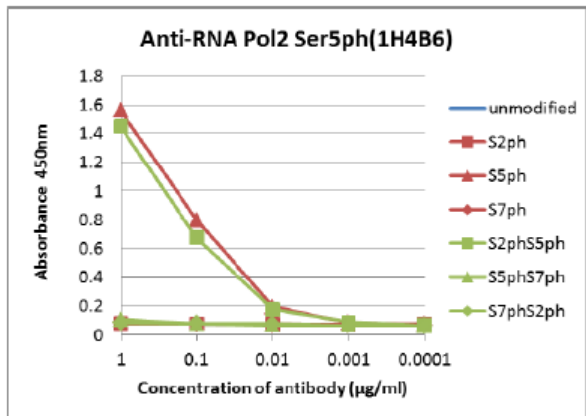
Optimal dilutions/concentrations should be determined by the end user.

References

1) Odawara et al., BMC Genomics. 2011 Oct 20;12:516. PMID: [22011111](#)*

* This antibody is used in ref.1.

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	phYS ^{ph}	PTS	PS	YSPTSPS

Fig.1 The composition of the CTD peptides and the reactivity of RNA polymerase 2, CTD Ser5ph antibody, 1H4B6.

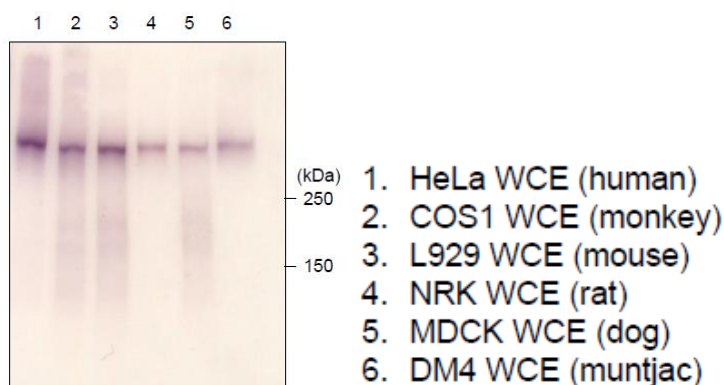


Fig.2 Western blot analysis of the mammalian cells extracts using RNA polymerase 2, CTD Ser5ph antibody, 1H4B6.

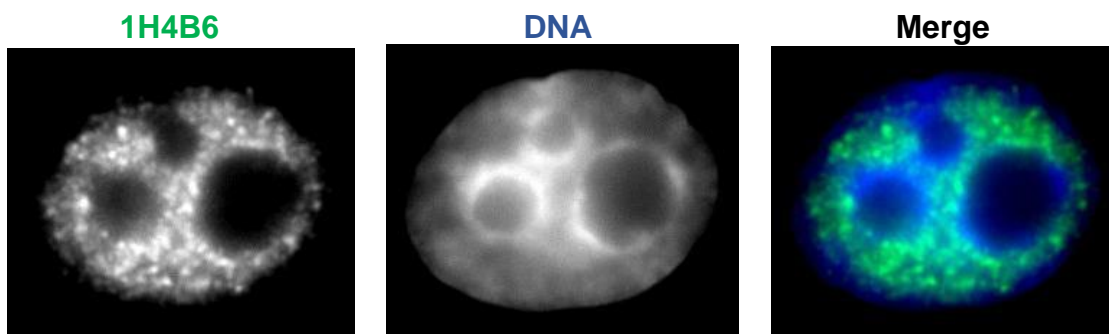


Fig.3 Immunocytochemical analysis of HeLa Cell using RNA polymerase 2, CTD Ser5ph antibody, 1H4B6.

For research use only. Not for clinical diagnosis.



COSMO BIO Co., LTD.

[JAPAN]
 TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
 KOTO-KU. TOKYO 135-0016, JAPAN
 Phone: +81-3-5632-9610
 FAX: +81-3-5632-9619
 URL: <https://www.cosmobio.co.jp/>



COSMO BIO USA

[Outside Japan]
 2792 Loker Ave West, Suite 101
 Carlsbad, CA 92010, USA
 email: info@cosmobioua.com
 Phone/FAX: (+1) 760-431-4600
 URL: www.cosmobioua.com