COSMO BIO CO., LTD.
Inspiration for Life Science

MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis

Catalog No. CEC-017

Anti-RNA polymerase 2, CTD Ser7ph 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 Ser7ph Peptide of RNA Pol Ⅱ CTD repeat, SPTSPSYSPTSP(phS)YSPTSPS
Host	Rat
Clone number	3D4A12
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 μL
Label	Unlabeled
Specificity	RNA polymerase 2, CTD Ser7ph
Cross reactivity	the mammals
Storage	Store below -20℃ (below -70°C for prolonged storage) Aliquot to avoid cycles of freeze/thaw.
Other	-

Application notes

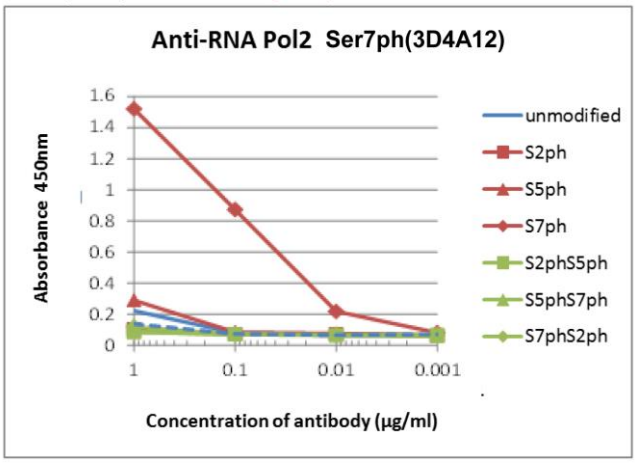
Recommended use
WB, ICC, ChIP Not tested for other applications.

Recommended dilutions
Western blotting, 1/1,000 to 1/5,000
Immunocytochemistry, 1/100 to 1/500
Optimal dilutions/concentrations should be determined by the end user.

References

1) Maehara et al., (2013) Nucleic Acid Research, 41,54-62
This antibody is used in ref.1.

ANTIBODY CHARACTERIZATION



unmodified	SPTSPS YS PTS PS YSPTSPS
S2ph	SPTSPS YSphPTS PS YSPTSPS
S5ph	SPTSPS YS PTSphPS YSPTSPS
S7ph	SPTSPS YS PTS PSphYSPTSPS
S2phS5ph	SPTSPS YSphPTSphPS YSPTSPS
S5phS7ph	SPTSPS YS PTSphPSphYSPTSPS
S7phS2ph	SPTSPSphYSphPTS PS YSPTSPS

Fig.1 The composition of the CTD peptides and the reactivity of RNA polymerase 2, CTD Ser7ph antibody, 3D4A12.

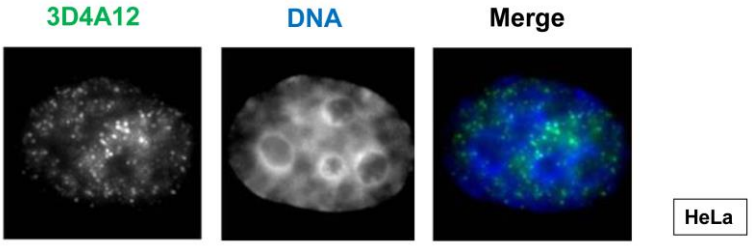
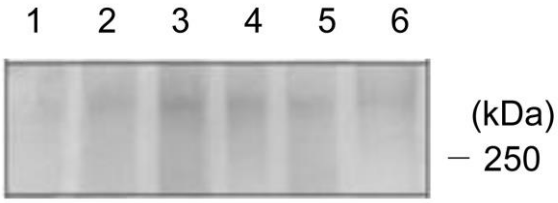


Fig.2 Immunocytochemistry - RNA polymerase 2, CTD Ser7ph antibody（3D4A12）, HeLa cells



1. HeLa WCE (human)
2. COS1 WCE (monkey)
3. L929 WCE (mouse)
4. NRK WCE (rat)
5. MDCK WCE (dog)
6. DM4 WCE (muntjac)

Fig.3 Western blot - RNA polymerase 2, CTD Ser7ph antibody（3D4A12）

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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@cosmobiousa.com
Phone/FAX: (+1) 760-431-4600
URL: www.cosmobiousa.com