

## Datasheet: MCA6380

**BATCH NUMBER 168355**

<b>Description:</b>	RAT ANTI HUMAN RNA POL II CTD (pSer7)
<b>Specificity:</b>	RNA POL II CTD (pSer7)
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	3D4A12
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			0.5 ug/ml - 2 ug/ml
Immunofluorescence	▪			2 ug/ml - 10 ug/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.035% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	30% Glycerol
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml

**Immunogen** A peptide containing the RNA pol II CTD sequence phosphorylated at serine 7

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**External Database**

**Links**

**UniProt:**

[P24928](#)    [Related reagents](#)

**Entrez Gene:**

[5430](#)    POLR2A    [Related reagents](#)

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**Synonyms**

POLR2

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**Specificity**

**Rat anti Human RNA pol II CTD (pSer7) antibody, clone 3D4A12** recognizes RNA polymerase II, also known as RNAP II and pol II, when phosphorylated at serine 7 of the carboxyl-terminal repeat domain.

RNA pol II is a 550 kDa enzyme complex made up of 12 subunits that transcribes DNA into precursors of messenger RNA (mRNA), snRNA, and microRNA ([Kornburg, 1999](#)) ([Sims et al. 2004](#)). The carboxyl-terminal repeat domain (CTD) of RNA pol II is reversibly phosphorylated in during the transcription cycle ([Phatnani and Greenleaf, 2006](#)). Phosphorylation of the CTD of RNA pol II at serine 7 is found on all pol II-transcribed genes in mammalian cells, however, this event is only essential for expression of a sub-class of genes encoding small nuclear (sn) RNAs. It is thought that phosphorylation of the CTD of RNA pol II at serine 7 facilitates transcription of these genes and 3' end processing of the transcripts, through recruitment of the RPAP2 phosphatase and the snRNA gene-specific Integrator complex ([Egloff, 2012](#)).

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10049 available at: <https://www.bio-rad-antibodies.com/SDS/MCA6380>  
10049

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)    [FITC](#)

Goat Anti Rat IgG (STAR73...)    [RPE](#)

Rabbit Anti Rat IgG (STAR17...)    [FITC](#)

Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos., Biotin</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®650, DyLight®800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>

### **Recommended Negative Controls**

[RAT IgG2b NEGATIVE CONTROL \(MCA6006GA\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M394847:220218'

**Printed on 10 Jul 2024**

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