

# Datasheet: MCA6378

Description:	RAT ANTI HUMAN RNA POL II CTD (pSer5)
Specificity:	RNA POL II CTD (pSer5)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1H4B6
lsotype:	lgG2b
Quantity:	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 <u>www.bio-rad-antibodies.com/protocols</u> .					
		Yes	No	Not Determined	Suggested Dilution	
	Western Blotting	•		Not Dotorninou	0.5 ug/ml - 2 ug/ml	
	Immunofluorescence	•			4 ug/ml - 6 ug/ml	
	Where this product has	not been te	ested for i	use in a particular tech	<b>U U</b>	
	necessarily exclude its u a guide only. It is recomi system using appropriate	ise in such mended th	procedui at the use	res. Suggested working or titrates the product f	g dilutions are given as	
Target Species	Human					
Product Form	Purified IgG - liquid					
Preparation	Purified IgG prepared by supernatant	∕ affinity ch	romatogr	aphy on Protein G fror	n tissue culture	
Buffer Solution	Phosphate buffered salir	ıe				
Preservative Stabilisers	0.035% Sodium Azide (I 30% Glycerol	NaN <sub>3</sub> )				
Carrier Free	Yes					
Approx. Protein Concentrations	IgG concentration 1.0 m	g/ml				
Immunogen	A peptide containing the	RNA pol I	I CTD se	quence phosphorylate	d at serine 5	

External Database Links	UniProt: <u>P24928</u> <u>Related reagents</u>				
	Entrez Gene: <u>5430</u> POLR2A <u>Related reagents</u>				
Synonyms	POLR2				
Specificity	Rat anti Human RNA pol II CTD (pSer5) antibody, clone 1H4B6 recognizes RNA polymerase II, also known as RNAP II and pol II, when phosphorylated at serine 5 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 ( <u>Kornburg, 1999</u> ) ( <u>Sims 3rd <i>et al.</i> 2004</u> ). The carboxyl-terminal repeat domain (CTD) of RNA pol II is reversibly phosphorylated in during the transcription cycle. It is thought that phosphorylation of the CTD of RNA pol II at serine 5 facilitates the formation of 3' ends of messages ( <u>Phatnani and Greenleaf, 2006</u> ). Phosphorylation of serine 5 of the carboxyl-terminal repeat domain of RNA pol II facilitates the recruitment of the capping enzyme ( <u>Egloff and Murphy, 2008</u> ).				
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.				
Guarantee	12 months from date of despatch				
Health And Safety Information	Material Safety Datasheet documentation #10049 available at: https://www.bio-rad-antibodies.com/SDS/MCA6378 10049				
Regulatory	For research purposes only				

## **Related Products**

### **Recommended Secondary Antibodies**

Goat Anti Rat IgG (STAR69)	<u>FITC</u>		
Goat Anti Rat IgG (STAR73)	<u>RPE</u>		
Rabbit Anti Rat IgG (STAR17)	<u>FITC</u>		
Goat Anti Rat IgG (STAR131)	<u>Alk. Phos., Biotin</u>		
Goat Anti Rat IgG (STAR72)	HRP		
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71) DyLight®650, DyLight®800			

Rabbit Anti Rat IgG (STAR21...)

Rabbit Anti Rat IgG (STAR16...)

#### **Recommended Negative Controls**

RAT IgG2b NEGATIVE CONTROL (MCA6006GA)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-ra	ad.com	Email: antibody_sales_uk@bio-ra	ad.com	Email: antibody_sales_de@bio-rad.com

<u>HRP</u>

DyLight®800

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M394846:220218'

#### Printed on 18 Jan 2024

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