Datasheet: MCA6380

Description:	RAT ANTI HUMAN RNA POL II CTD (pSer7)
Specificity:	RNA POL II CTD (pSer7)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	3D4A12
Isotype:	IgG2b
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 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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.035% Sodium Azide (NaN_3) 30% Glycerol
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	A peptide containing the RNA pol II CTD sequence phosphorylated at serine 7

External Database Links	**UniProt:** P24928 Related reagents **Entrez Gene:** 5430 POLR2A Related reagents
Synonyms	POLR2
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 mammalaian 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).
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/MCA6380 10049
Regulatory	For research purposes only

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...)	Alk. Phos., Biotin

Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®650, DyLight®800
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR16...)	DyLight®800

Recommended Negative Controls

RAT IgG2b NEGATIVE CONTROL (MCA6006GA)

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

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

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