

Datasheet: VMA00909

BATCH NUMBER 158437

Description:	HUMAN ANTI RNA POL II CTD (pSer5)
Specificity:	RNA POL II CTD (pSer5)
Other names:	RPB1
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	AbD37525
Isotype:	HuCAL Fab bivalent
Quantity:	100 µl

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	▪			1/1000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

Target Species

Human

Product Form

A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in *E. coli*. This Fab fragment is bivalent by dimerization of an inactive variant of the bacterial alkaline phosphatase fusion protein. The antibody is tagged with a DYKDDDDK tag and a HIS-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This product is supplied as a liquid.

Preparation

Prepared by affinity chromatography

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.01% Thiomersal

Approx. Protein Concentrations	Antibody concentration 0.5 mg/ml
Immunogen	Phospho specific-peptide corresponding to residues surrounding serine 5 of human RPB1 and conjugated to BSA and human transferrin
External Database Links	<p>UniProt: P24928 Related reagents</p> <p>Entrez Gene: 5430 POLR2A Related reagents</p>
Synonyms	POLR2
Specificity	<p>Human anti RNA Pol II CTD (pSer5) antibody is a recombinant Fab antibody fragment in the format Fab-Max-FH with specificity for DNA-directed RNA polymerase II subunit RPB1, otherwise known as RNAP II, RNA Pol II and Pol II, when phosphorylated at serine 5. Pol II forms part of a highly-conserved initiator complex for transcription of gene transcription, directing RNA synthesis with the help of general initiation factors (Sainsbury et al. 2015). In fact, Pol II is able to transcribe all protein-coding genes and most non-coding RNA genes in eukaryotes, providing an essential role (Kuehner et al. 2011). Pol II undergoes dynamic post-translational modification at its carboxy-terminal domain (CTD) in order to regulate transcription (Harlen and Churchman 2017). The CTD contains the residues Ser2, Ser 5 and Ser 7 within multiple heptad repeats. Phosphorylation at these targets regulates the activities of the CTD, which include coupling transcription and processing of nascent RNA, and transcription elongation and termination (Hsin and Manley 2012).</p>
Western Blotting	Human anti RNA Pol II CTD (pSer5) detects a band of approximately 299 kDa in Hela cell lysates
Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Acknowledgements	<p>This product and/or its use is covered by claims of U.S. patents, and/or pending U.S. and non-U.S. patent applications owned by or under license to Bio-Rad Laboratories, Inc. See bio-rad.com/en-us/trademarks for details.</p> <p>His-tag is a registered trademark of EMD Biosciences</p>
Health And Safety	Material Safety Datasheet documentation #10094 available at:

Information <https://www.bio-rad-antibodies.com/SDS/VMA00909>
10094

Regulatory For research purposes only

Technical Advice Technical advice - Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

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