

## Datasheet: VMA00677KT

Description:	TOPOISOMERASE II ALPHA ANTIBODY WITH CONTROL LYSATE
Specificity:	TOPOISOMERASE II ALPHA
Format:	Purified
Product Type:	PrecisionAb™ Monoclonal
Clone:	G02/3H11
Isotype:	lgG2b
Quantity:	2 Westerns

## **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 <a href="https://www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting				1/1000

**PrecisionAb antibodies have been extensively <u>validated for the western blot application</u>. The antibody has been validated at the suggested dilution. 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 dependant on sample type.** 

Target Species	Human	
Product Form	Purified IgG - Liquid	
Preparation	20μl Mouse monoclonal antibody affinity purified on Protein G from tissue culture supernatant	
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% Sodium Azide	
Immunogen	E. coli-derived recombinant protein of amino acids 1174-1531 of human topoisomerase II alpha	
External Database Links	UniProt:  P11388 Related reagents  Entrez Gene:  7153 TOP2A Related reagents	
Synonyms	TOP2	
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell	

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Specificity	<b>Mouse anti Human topoisomerase II alpha antibody</b> recognizes DNA topoisomerase II alpha, also known as DNA gyrase,TOP2A and DNA topoisomerase ATP-hydrolyzing.
	TOP2A encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in TOP2A have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia (provided by RefSeq, Jul 2010).
	Mouse anti Human topoisomerase II alpha antibody detects a band of 191 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.
Western Blotting	Mouse anti topoisomerase II alpha detects a band of approximately 191 kDa in HEK293 cell lysates
Instructions For Use	Please refer to the <u>PrecisionAb western blotting protocol.</u> For additional information on secondary antibody dilution and exposure time see product web page.
Lysate Composition	400μg HEK293 lysate lyophilized in RIPA buffer
Lysate Reconstitution	- If using DDT reconstitute the lyophilized lysate with 190 $\mu$ l DI H $_2$ O, add 200 $\mu$ l 2x Laemmli Sample Buffer and 10 $\mu$ l 2M DTT.
	- If using BME reconstitute the lyophilized lysate with 180 $\mu$ l DI H $_2$ O, add 200 $\mu$ l 2x Laemmli Sample Buffer and 20 $\mu$ l BME.
	Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.
Storage	Antibody: Store undiluted at -20°C, avoiding repeated freeze thaw cycles.
	Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.
Guarantee	As supplied, 12 months from date of despatch
Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories
Health And Safety Information	Material Safety Datasheet documentation #10040 #10561 available at: Antibody (10040): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> Lysate Material (10561): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf</a>

# **Related Products**

For research purposes only

Regulatory

## **Recommended Secondary Antibodies**

Goat Anti Mouse IgG (H/L) (STAR207...) HRP

## **Recommended Negative Controls**

#### MOUSE IgG2b NEGATIVE CONTROL (MCA691)

North & South Tel: +1 800 265 7376 America

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739

Tel: +49 (0) 89 8090 95 21 Europe

Fax: +49 (0) 89 8090 95 50

Email: antibody\_sales\_de@bio-rad.com

Fax: +1 919 878 3751

Email: antibody\_sales\_us@bio-rad.com Email: antibody\_sales\_uk@bio-rad.com

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