

Datasheet: VMA00173KT

Description:	TUBULIN ALPHA 1A CHAIN ANTIBODY WITH CONTROL LYSATE
Specificity:	TUBULIN ALPHA 1A CHAIN
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	OTI2C8
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="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</u> <u>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
Species Cross Reactivity	Reacts with: Mouse, Rat  N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Product Form	Purified IgG - liquid
Preparation	20μl Mouse monoclonal antibody purified by affinity chromatography from ascites.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin

	50% Glycerol				
Immunogen	Full length recombinant human tubulin alpha 1A chain (NP_006000) produced in HEK293T cells				
External Database Links	UniProt:  Q71U36 Related reagents  Entrez Gene:  7846 TUBA1A Related reagents				
Synonyms	TUBA3				
Specificity	Mouse anti Human tubulin alpha 1A chain antibody recognizes the tubulin alpha 1A chain, also known as hum-a-tub1, hum-a-tub2, tubulin B-alpha-1, tubulin alpha-1A chain, tubulin alpha-3 chain and tubulin, alpha, brain-specific.				
	Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulins. The genes encoding these microtubule constituents belong to the tubulin superfamily, which is composed of six distinct families. Genes from the alpha, beta and gamma tubulin families are found in all eukaryotes. The alpha and beta tubulins represent the major components of microtubules, while gamma tubulin plays a critical role in the nucleation of microtubule assembly. There are multiple alpha and beta tubulin genes, which are highly conserved among species. The TUBA1A gene encodes alpha tubulin and is highly similar to the mouse and rat Tuba1 genes. Northern blotting studies have shown that the gene expression is predominantly found in morphologically differentiated neurologic cells. TUBA1A is one of three alpha-tubulin genes in a cluster on chromosome 12q. Mutations in TUBA1A cause lissencephaly type 3 (LIS3) - a neurological condition characterized by microcephaly, mental retardation, and early-onset epilepsy and caused by defective neuronal migration. Alternative splicing results in multiple transcript variants encoding distinct isoforms (provided by RefSeq, Jul 2012).				
	Mouse anti Human tubulin alpha 1A chain antibody detects a band of 50 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.				
Western Blotting	Anti tubulin alpha 1A chain detects a band of approximately 50 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 190µl DI H <sub>2</sub> O, add 200µl 2x Laemmli Sample Buffer and 10µl 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 20µl 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 #10048 #10561 available at: Antibody (10048): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10048.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10048.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>
Regulatory	For research purposes only

# **Related Products**

## **Recommended Secondary Antibodies**

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

## **Recommended Negative Controls**

MOUSE IgG2b NEGATIVE CONTROL (MCA691)

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America Fax: +1 919 878 3751

Worldwide

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