

Datasheet: VMA00143KT

Description:	ISOCITRATE DEHYDROGENASE 1 ANTIBODY WITH CONTROL LYSATE
Specificity:	ISOCITRATE DEHYDROGENASE 1
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	OTI2H9
Isotype:	IgG1
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

PrecisionAb antibodies have been extensively [validated for the western blot application](#). 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 purified by affinity chromatography from ascites.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin 50% Glycerol
Immunogen	Full-length protein expressed in 293T cell transfected with human isocitrate dehydrogenase 1 expression vector
External Database	UniProt:

Entrez Gene:**Synonyms**

PICD

Specificity

Mouse anti Human isocitrate dehydrogenase 1 antibody recognizes isocitrate dehydrogenase 1, also known as NADP(+)-specific ICDH, NADP-dependent isocitrate dehydrogenase, cytosolic, NADP-dependent isocitrate dehydrogenase, peroxisomal, epididymis luminal protein 216, epididymis secretory protein Li 26, isocitrate dehydrogenase [NADP] cytoplasmic and oxalosuccinate decarboxylase.

Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. Encoded by IDH1 gene, isocitrate dehydrogenase 1 is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for IDH1 (provided by RefSeq, Sep 2013).

Mouse anti Human isocitrate dehydrogenase 1 antibody detects a band of 46 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

Western Blotting

Anti isocitrate dehydrogenase 1 detects a band of approximately 46 kDa in HepG2 cell lysates.

Instructions For Use

Please refer to the [PrecisionAb western blotting protocol](#). For additional information on secondary antibody dilution and exposure time see product web page.

Lysate Composition

400µg HepG2 lysate lyophilized in RIPA buffer.

Lysate Reconstitution

- If using DDT reconstitute the lyophilized lysate with 190µl DI H₂O, add 200µl 2x Laemmli Sample Buffer and 10µl 2M DTT.
- If using BME reconstitute the lyophilized lysate with 180µl DI H₂O, add 200µl 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.
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Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories.
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Health And Safety Information	Material Safety Datasheet documentation #10048 #10561 available at: Antibody (10048): https://www.bio-rad-antibodies.com/uploads/MSDS/10048.pdf Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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
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