

Datasheet: VMA00235KT

Description:	ALDEHYDE DEHYDROGENASE 2 ANTIBODY WITH CONTROL LYSATE
Specificity:	ALDEHYDE DEHYDROGENASE 2
Format:	Purified
Product Type:	PrecisionAb Monoclonal
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

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 prepared by affinity chromatography on Protein G from ascites

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN₃)

Immunogen Recombinant protein corresponding to amino acids 317-517 of human aldehyde dehydrogenase 2 expressed in *E. coli*

External Database Links

UniProt:

[P05091](#) [Related reagents](#)

Entrez Gene:

[217](#) ALDH2 [Related reagents](#)

Synonyms ALDM

Specificity **Mouse anti Human aldehyde dehydrogenase 2 antibody** recognizes aldehyde dehydrogenase, mitochondrial, also known as ALDH class 2, acetaldehyde dehydrogenase 2, aldehyde dehydrogenase, mitochondrial, liver mitochondrial ALDH and nucleus-encoded mitochondrial aldehyde dehydrogenase 2.

This protein belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. ALDH2 encodes a mitochondrial isoform, which has a low Km for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms (provided by RefSeq, Mar 2011).

Mouse anti Human aldehyde dehydrogenase 2 antibody detects a band of 56 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

Western Blotting Anti aldehyde dehydrogenase 2 detects a band of approximately 56 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.
Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories.
Health And Safety Information	Material Safety Datasheet documentation #10040 #10561 available at: Antibody (10040): https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

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

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