10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MDH2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18138b

Product Information

Application	WB, E
Primary Accession	P40926
Other Accession	Q4R568, NP_005909.2
Reactivity	Human, Rat, Mouse
Predicted	Monkey, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22957
Calculated MW	35503
Antigen Region	297-326

Additional Information

Gene ID	4191
Other Names	Malate dehydrogenase, mitochondrial, MDH2
Target/Specificity	This MDH2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 297-326 amino acids from the C-terminal region of human MDH2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MDH2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MDH2
Function	Mitochondrial malate dehydrogenase that catalyzes the reversible conversion of malate to oxaloacetate using NAD(+) as a cofactor (PubMed:27989324). Plays a central role in the tricarboxylic acid (TCA) cycle

	contributing to cellular respiration and energy production via the mitochondrial electron transport chain (PubMed:35366151). Also participates in the malate-aspartate NADH shuttle, facilitating transfer of reducing equivalents between cytosol and mitochondria to maintain redox balance (NAD(+)/NADH homeostasis) and support metabolic flux between compartments (By similarity). In addition to its metabolic role, binds to RNA in cells, associating with cytosolic RNAs including tRNAs and mRNAs (PubMed:38609156).
Cellular Location	Mitochondrion matrix

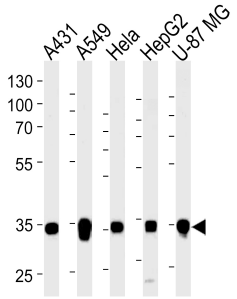
Background

Malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. The protein encoded by this gene is localized to the mitochondria and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria. [provided by RefSeq].

References

Rose, J. Phd, et al. Mol. Med. (2010) In press :
Rzem, R., et al. J. Inherit. Metab. Dis. 30(5):681-689(2007)
Luo, C., et al. J. Biochem. Biophys. Methods 68(2):101-111(2006)
Kullberg, M., et al. Mol. Biol. Evol. 23(8):1493-1503(2006)
Andersen, J.S., et al. Nature 433(7021):77-83(2005)

Images



Western blot analysis of lysates from A431, A549, Hela, HepG2, U-87 MG cell line (from left to right), using MDH2 Antibody (C-term)(Cat. #AP18138b). AP18138b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.