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MDH2 Rabbit mAb

Catalog # AP75702

Product Information

Application	WB, IHC-P, FC
Primary Accession	P40926
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	35503

Additional Information

Gene ID	4191
Other Names	MDH2
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:10-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

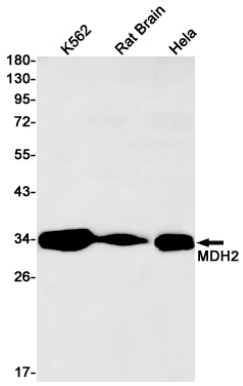
Protein Information

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

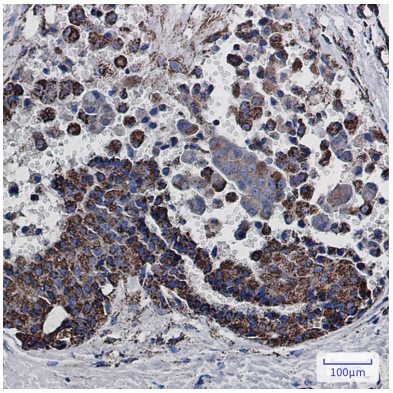
Background

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. Several transcript variants encoding different isoforms have been found for this gene.

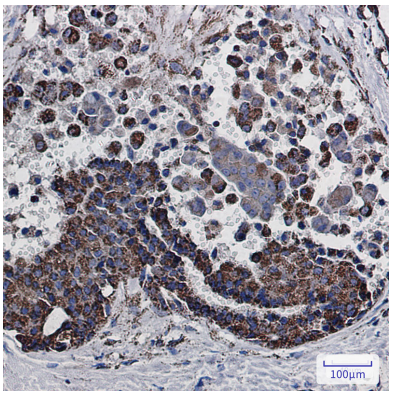
Images



Western blot analysis of MDH2 in K562, rat Brain, Hela lysates using MDH2 antibody.



Immunohistochemistry analysis of paraffin-embedded Human breast cancer using MDH2 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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