MDH2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	MDH2, Monoclonal Antibody
Full Product Name	MDH2 (Malate Dehydrogenase, Mitochondrial, MGC3559) (MaxLight 490)
Product Gene Name	anti-MDH2 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	1G12
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human MDH2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery o centrifuge the original vial prior to removing the cap.
Molecular Weight	35.2 kDa (335aa), confirmed by MALDI-TOF
OMIM	154100
3D Structure	ModBase 3D Structure for P40926
Immunogen	Partial recombinant corresponding to aa134-246 from human MDH2 (NP_005909) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	EAMICVIANPVNSTIPITAEVFKKHGVYNPNKIFGVTTLDIVRANTFVAELKGLDPARVNVPVIGGHAGKTIIPLISQCTPKVDFPQDQLTALTGRIQEAGTEVV
Conjugate	MaxLight490
Product Categories/Family for anti-MDH2 antibody	Antibodies; Enzymes; Dehydrogenase
Applications Tested/Suitable for anti-MDH2 antibody	FLISA, Western Blot (WB)
Application Notes for anti-MDH2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-MDH2 antibody	MDH2 is localized to the mitochondria and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cy mitochondria.

Other Notes	Small volumes of anti-MDH2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necess centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional may apply.
Searchable Terms for MDH2 purchase	MBS6201801 is an antibody targeting MDH2. Also known as MDH2 (Malate Dehydrogenase, Mitochondrial, MGC3559) (MaxLight 490). Reactive in Hu Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MDH2. It may not necessarily be applicable to this product.

NCBI GI #	21735621
NCBI GeneID	4191
NCBI Accession #	NP_005909
UniProt Primary Accession #	P40926
UniProt Secondary Accession #	O43682; A8K414; B2RE78; B4DE44; E9PDB2
UniProt Related Accession #	P40926
GenBank Nucleotide #	NM_005918
NCBI Official Full Name	malate dehydrogenase, mitochondrial isoform 1
NCBI Official Synonym Full Names	malate dehydrogenase 2
NCBI Official Symbol	MDH2
NCBI Official Synonym Symbols	MDH; MOR1; M-MDH; EIEE51; MGC:3559
UniProt Protein Name	Malate dehydrogenase, mitochondrial
Protein Family	Malate dehydrogenase
UniProt Gene Name	MDH2
UniProt Entry Name	MDHM_HUMAN
NCBI Protein Information	malate dehydrogenase, mitochondrial
NCBI Summary for MDH2	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. [provided by RefSeq, Sep 2013]
UniProt Comments for MDH2	MDH2: mitochondrial malate dehydrogenase catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. May play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria. Protein type: Mitochondrial; Carbohydrate Metabolism - pyruvate; Carbohydrate Metabolism - glyoxylate and dicarboxylate; EC 1.1.1.37; Carbohydrate Metabolism - citrate (TCA) cycle; Oxidoreductase Chromosomal Location of Human Ortholog: 7cen-q22 Cellular Component: nucleoplasm; mitochondrion; mitochondrial matrix; mitochondrial inner membrane; plasma membrane; nucleus Molecular Function: protein self-association; L-malate dehydrogenase activity; malate dehydrogenase (NADP+) activity Biological Process: cellular metabolic process; malate metabolic process; oxaloacetate metabolic process; NADH metabolic process; tricarboxylic acid cycle; carbohydrate metabolic process; glucose metabolic process; cellular carbohydrate metabolic process; pathogenesis; internal protein amino acid acetylation; gluconeogenesis

Research Articles on MDH2	**1.** loss-of-function mutations in MDH2 are also associated with severe neurological clinical presentations in children
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