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MDH1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5245

Product Information

Application	FC, IHC-P, WB
Primary Accession	P40925
Other Accession	O88989, P11708, P14152, Q5ZME2, Q3T145
Reactivity	Mouse, Rat, Human
Predicted	Mouse, Rat, Bovine, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36426
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	4190
Antigen Region	286-314
Other Names	MDH1; MDHA; Malate dehydrogenase, cytoplasmic; Cytosolic malate dehydrogenase; Diiodophenylpyruvate reductase
Dilution	FC~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This MDH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-314 amino acids from the C-terminal region of human MDH1.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	MDH1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MDH1 {ECO:0000303|PubMed:34012073, ECO:0000312|HGNC:HGNC:6970}
Function	Catalyzes the reduction of aromatic alpha-keto acids in the presence of

NADH (PubMed:2449162, PubMed:3052244). Plays essential roles in the malate-aspartate shuttle and the tricarboxylic acid cycle, important in mitochondrial NADH supply for oxidative phosphorylation (PubMed:31538237). Catalyzes the reduction of 2-oxoglutarate to 2-hydroxyglutarate, leading to elevated reactive oxygen species (ROS) (PubMed:34012073).

Cellular Location Cytoplasm, cytosol.

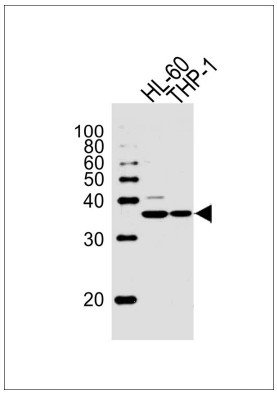
Background

MDH1 is localized to the cytoplasm and may play pivotal roles in the malate-aspartate shuttle that operates in the metabolic coordination between cytosol and mitochondria.

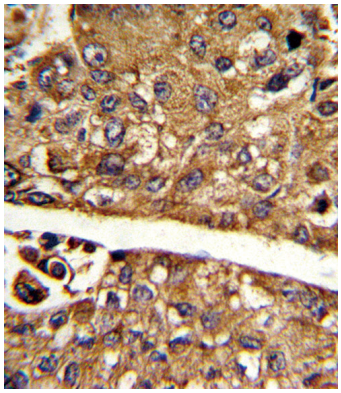
References

Lee,S.M., et.al., Cell Death Differ. 16 (5), 738-748 (2009)

Images

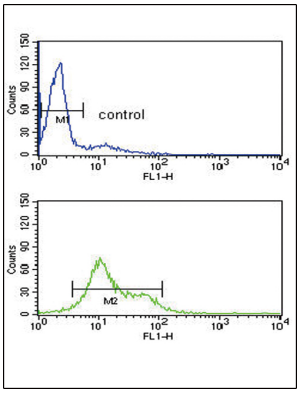


Western blot analysis of lysates from HL-60,THP-1 cell line (from left to right), using MDH1 Antibody (C-term)(Cat. #AW5245). AW5245 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with MDH1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

MDH1 Antibody (C-term) (Cat. #AW5245) flow cytometry analysis of HL-60 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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