

MDH1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AW5245

Product Information

| Application | FC, IHC-P, WB |
|-------------------|-------------------------------------------------------------------------------|
| Primary Accession | <u>P40925</u> |
| Other Accession | <u>088989</u> , <u>P11708</u> , <u>P14152</u> , <u>Q5ZME2</u> , <u>Q3T145</u> |
| 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:<u>2449162</u>, PubMed:<u>3052244</u>). Plays essential roles in the malate-aspartate shuttle and the tricarboxylic acid cycle, important in mitochondrial NADH supply for oxidative phosphorylation (PubMed:<u>31538237</u>). Catalyzes the reduction of 2-oxoglutarate to 2-hydroxyglutarate, leading to elevated reactive oxygen species (ROS) (PubMed:<u>34012073</u>).

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'.