

For Research Use Only

# MDH1 Polyclonal antibody

Catalog Number: 15904-1-AP

Featured Product

29 Publications



## Basic Information

### Catalog Number:

15904-1-AP

### Size:

150ul, Concentration: 450 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG8744

### GenBank Accession Number:

BC001484

### GeneID (NCBI):

4190

### UNIPROT ID:

P40925

### Full Name:

malate dehydrogenase 1, NAD (soluble)

### Calculated MW:

334 aa, 36 kDa

### Observed MW:

36 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:300-1:1200

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 ul suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: HepG2 cells, HL-60 cells, HEK-293 cells, mouse liver tissue, rat liver tissue

IP: HepG2 cells,

IHC: human renal cell carcinoma tissue, human liver cancer tissue, rat heart tissue, mouse kidney tissue

IF/ICC: HepG2 cells,

FC (Intra): HepG2 cells,

## Background Information

MDH1 (Malate dehydrogenase, cytoplasmic) is also named as MDHA and belongs to the LDH/MDH superfamily and MDH type 2 family which catalyzes the reversible oxidation of malate to oxaloacetate, utilizing the NAD/NADH cofactor system in the citric acid cycle. It can exist as a dimer and the dimeric MDH1 is the mitochondrial isoenzyme, whereas the tetrameric MDH2 is the glycosomal isoenzyme. (PMID:10693743)

## Notable Publications

Author	Pubmed ID	Journal	Application
Teresa W-M Fan	36150727	J Immunol	
Xiaoyu Ma	25301052	Nat Commun	WB
Jia-Yuan Zhang	34012073	Cell Res	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

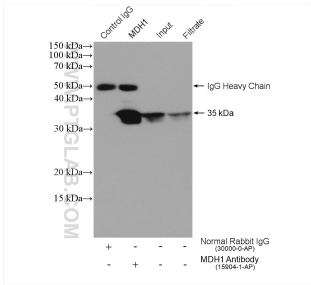
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

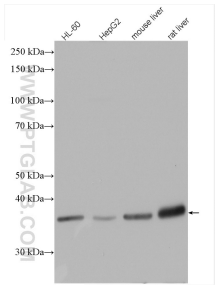
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

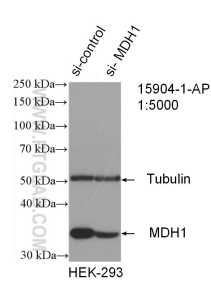
Selected Validation Data



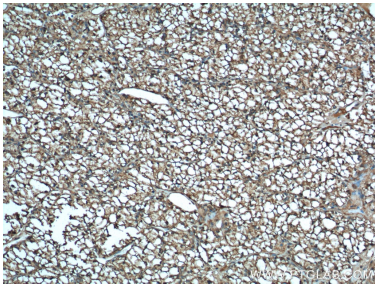
IP result of anti-MDH1 (IP:15904-1-AP, 4ug; Detection:15904-1-AP 1:10000) with HepG2 cells lysate 960 ug.



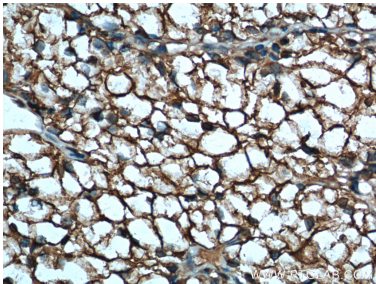
HepG2 cells were subjected to SDS PAGE followed by western blot with 15904-1-AP (MDH1 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



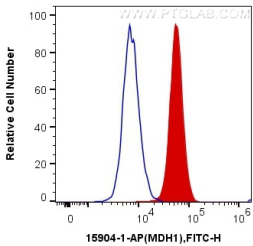
WB result of MDH1 antibody (15904-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-MDH1 transfected HEK-293 cells.



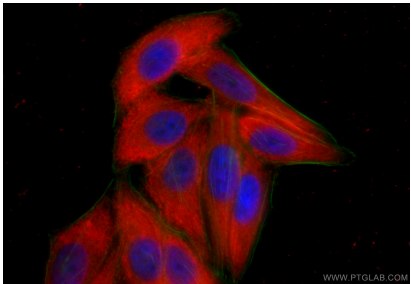
Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma tissue slide using 15904-1-AP (MDH1 Antibody) at dilution of 1:100 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma tissue slide using 15904-1-AP (MDH1 Antibody) at dilution of 1:100 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HepG2 cells were intracellularly stained with 0.4 ug Anti-Human MDH1 (15904-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug x. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using MDH1 antibody (15904-1-AP) at dilution of 1:600 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4), CL488-Phalloidin (green).