### For Research Use Only

# MTHFD1 Polyclonal antibody

Catalog Number: 10794-1-AP

Featured Product

**12 Publications** 



**Purification Method:** 

WB 1:500-1:2000

protein lysate

IHC 1:50-1:500

Antigen affinity purification

IP 0.5-4.0 ug for 1.0-3.0 mg of total

Recommended Dilutions:

**Basic Information** 

Catalog Number: 10794-1-AP Size:

450 μg/ml Source:

Rabbit Isotype:

Immunogen Catalog Number:

AG1225

GenBank Accession Number:

BC009806 GenelD (NCBI): 4522

UNIPROT ID: P11586

Full Name: methylenetetrahydrofolate

dehydrogenase (NADP+ dependent) 1,

methenyltetrahydrofolate cyclohydrolase.

formyltetrahydrofolate synthetase

Calculated MW: 101 kDa Observed MW: 101 kDa

**Applications** 

Tested Applications: IHC, IP, WB, ELISA Cited Applications: IHC, WB

Species Specificity: human, mouse Cited Species:

human, mouse

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: HEK-293 cells, human brain tissue, HuH-7 cells, K-

562 cells, mouse kidney tissue IP: mouse kidney tissue,

IHC: human liver cancer tissue, human colon cancer

tissue

# Background Information

MTHFD1 is a trifunctional enzyme involved in the pathway tetrahydrofolate interconversion, which is part of Onecarbon metabolism. MTHFD1 is associated with HCC and CRC progression. It has been reported that MTHFDdeficient patient fibroblasts exhibit enriched MTHFD1 in the nucleus which is critical for de novo dTMP synthesis. (PMID: 31133746, 30997850, 31421459, 25548164)

#### **Notable Publications**

Author	Pubmed ID	Journal	Application
Costas Koufaris	30275950	Cancer Metab	WB
Danielle E Anderson	34544865	Proc Natl Acad Sci U S A	WB
Li Cui	34533844	J Pineal 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

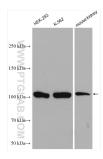
For technical support and original validation data for this product please contact:

T: 4006900926 E: Proteintech-CN@ptglab.com

W: ptgcn.cor

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

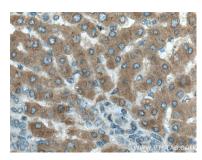
## **Selected Validation Data**



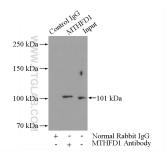
Various lysates were subjected to SDS PAGE followed by western blot with 10794-1-AP (MTHFD1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffinembedded human liver cancer tissue slide using 10794-1-AP (MTHFD1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffinembedded human liver cancer tissue slide using 10794-1-AP (MTHFD1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-MTHFD1 (IP:10794-1-AP, 5ug; Detection:10794-1-AP 1:600) with mouse kidney tissue lysate 4000ug.