

# MTHFD1L Monoclonal antibody

Catalog Number: 68321-1-Ig

## Basic Information

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|--|---|--|
| <b>Catalog Number:</b><br>68321-1-Ig                           | <b>GenBank Accession Number:</b><br>BC017477  | <b>Purification Method:</b><br>Protein A purification  |
| <b>Size:</b><br>150ul , Concentration: 1000 ug/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>25902  | <b>CloneNo.:</b><br>1G1F2  |
| <b>Source:</b><br>Mouse  | <b>UNIPROT ID:</b><br>Q6UB35  | <b>Recommended Dilutions:</b><br>WB: 1:5000-1:50000<br>IHC: 1:250-1:1000<br>FC (Intra): 0.40 ug per 10 <sup>6</sup> cells in a 100 µl suspension |
| <b>Isotype:</b><br>IgG2b                                       | <b>Full Name:</b><br>methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like |  |
| <b>Immunogen Catalog Number:</b><br>AG9061                     | <b>Calculated MW:</b><br>978 aa, 106 kDa<br><b>Observed MW:</b><br>106 kDa            |  |

## Applications

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| <b>Tested Applications:</b><br>WB, IHC, FC (Intra), ELISA  | <b>Positive Controls:</b><br>WB : U2OS cells, rabbit testis tissue, LNCaP cells, HeLa cells, HEK-293 cells, HepG2 cells, rat testis tissue<br>IHC : mouse liver tissue,<br>FC (Intra) : HepG2 cells, |
| <b>Species Specificity:</b><br>human, mouse, rat, rabbit   |  |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |  |

## Background Information

MTHFD1L (Monofunctional C1-tetrahydrofolate synthase, mitochondrial) is also named as FTHFSDC1 (Formyltetrahydrofolate synthetase). MTHFD1L enzyme is present in mitochondria from normal embryonic tissues and embryonic fibroblast cell lines, and embryonic mitochondria possess the ability to synthesize formate from glycine. It catalyzes the final step in the mitochondrial conversion of 1-C units to formate in embryos. Moreover, MTHFD1L levels were substantially higher in embryonic mitochondria than in adult liver mitochondria and embryonic mitochondria exhibited greater formate production (PMID:19948730). It has 2 isoforms produced by alternative splicing.

## Storage

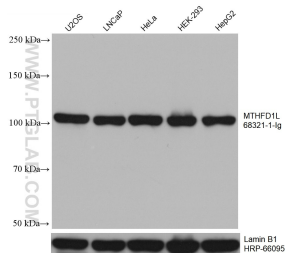
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

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

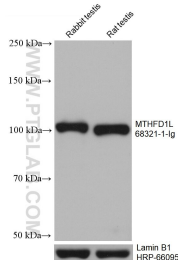
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

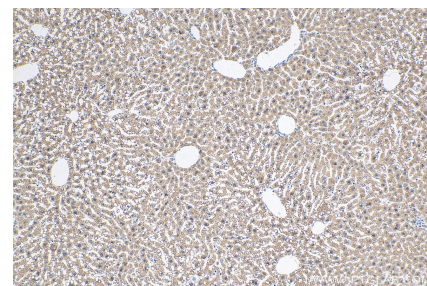
## Selected Validation Data



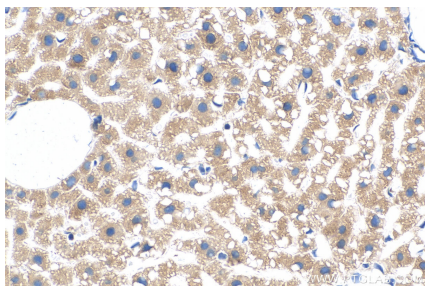
Various lysates were subjected to SDS PAGE followed by western blot with 68321-1-Ig (MTHFD1L antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Lamin B1 Monoclonal antibody (HRP-66095) as loading control.



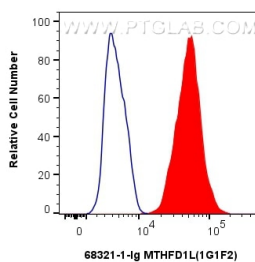
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Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 68321-1-Ig (MTHFD1L antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 68321-1-Ig (MTHFD1L antibody) at dilution of 1:500 (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 MTHFD1L Monoclonal antibody (68321-1-Ig, Clone:1G1F2) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.4 ug Mouse IgG2b isotype control Mouse McAb (66360-3-Ig, Clone: 11B8C4) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).