

For Research Use Only

# MTHFR Monoclonal antibody, PBS Only

Catalog Number: 66612-1-PBS



## Basic Information

<b>Catalog Number:</b> 66612-1-PBS	<b>GenBank Accession Number:</b> BC053509	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4524	<b>CloneNo.:</b> 1F7A3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P42898	
<b>Isotype:</b> IgG2b	<b>Full Name:</b> 5,10-methylenetetrahydrofolate reductase (NADPH)	
<b>Immunogen Catalog Number:</b> AG14970	<b>Calculated MW:</b> 656 aa, 75 kDa	
	<b>Observed MW:</b> 70 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, Indirect ELISA

**Species Specificity:**  
human

## Background Information

5,10-Methylenetetrahydrofolate reductase (MTHFR) is a crucial enzyme in the folate metabolic pathway with a key role in generating methyl groups. MTHFR reduces 5,10-methylenetetrahydrofolate (5,10-methyleneTHF) to 5-methylTHF, the primary carbon donor for methionine production from homocysteine. In humans and mice studies, mutations and polymorphisms in MTHFR are associated with impaired spermatogenesis and male infertility. It has been reported that MTHFR is highly phosphorylated under unperturbed conditions and T34 is the priming phosphorylation site. MTHFR gene has two promoters and isoform (70 kDa and 77 kDa). Although the major form of MTHFR is 77kDa in most tissues, a second isoform of 70kDa was observed after western blotting of human fetal liver and porcine liver. (PMID: 24769206, PMID: 34128976, PMID: 18615588)

## Storage

**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

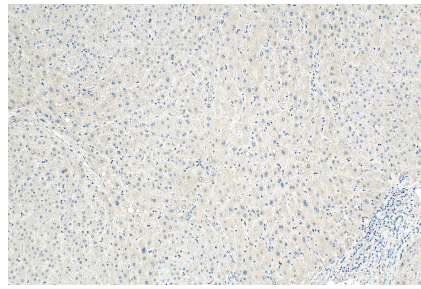
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: proteintech@ptglab.com  
W: ptglab.com

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

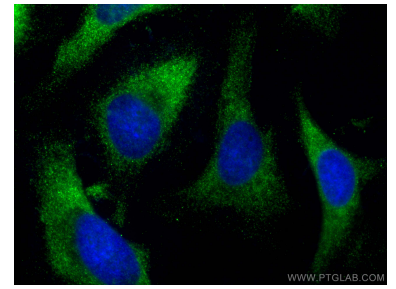
## Selected Validation Data



LNCaP cells were subjected to SDS PAGE followed by western blot with 66612-1-Ig (MTHFR antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66612-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66612-1-Ig (MTHFR antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66612-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using MTHFR antibody (66612-1-Ig, Clone: 1F7A3 ) at dilution of 1:2000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1). This data was developed using the same antibody clone with 66612-1-PBS in a different storage buffer formulation.