

For Research Use Only

# MTHFD2 Monoclonal antibody

Catalog Number: 68524-1-Ig



## Basic Information

|  |  |   |
|--|--|---|
| <b>Catalog Number:</b><br>68524-1-Ig                           | <b>GenBank Accession Number:</b><br>BC017054   | <b>Purification Method:</b><br>Protein A purification |
| <b>Size:</b><br>150ul , Concentration: 1000 µg/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>10797   | <b>CloneNo.:</b><br>1B4B6                             |
| <b>Source:</b><br>Mouse  | <b>Full Name:</b><br>methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, IHC 1:250-1:1000 | <b>Recommended Dilutions:</b><br>WB 1:5000-1:20000    |
| <b>Isotype:</b><br>IgG2a                                       | <b>Immunogen Catalog Number:</b><br>AG33605  | <b>Calculated MW:</b><br>350 aa, 38 kDa               |
|  | <b>Observed MW:</b><br>33-38 kDa   |   |

## Applications

### Tested Applications:

IHC, WB, ELISA

### Species Specificity:

Human

**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:** MCF-7 cells, LNCaP cells, HCT 116 cells, HeLa cells, HepG2 cells, K-562 cells, U2OS cells

**IHC:** human lung cancer tissue, mouse kidney tissue

## Background Information

Methylenetetrahydrofolate dehydrogenase 2 (MTHFD2) is a folate-coupled mitochondrial metabolic enzyme characterized by methylenetetrahydrofolate dehydrogenase and cyclohydrolase activity. It was demonstrated that suppression of MTHFD2 inhibits methylation reactions, decreases protein synthesis and disrupts redox homeostasis, which may ultimately result in significant changes in cellular metabolic phenotype. MTHFD2 is reported to be up-regulated in various tumours, such as lung adenocarcinoma (PMID: 34121323) and breast cancer (PMID: 34007312).

## 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

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

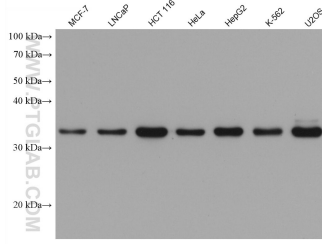
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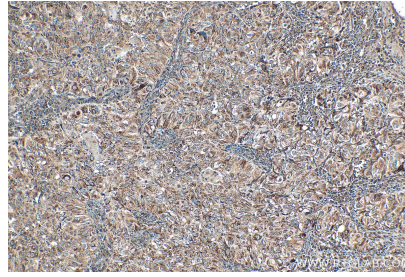
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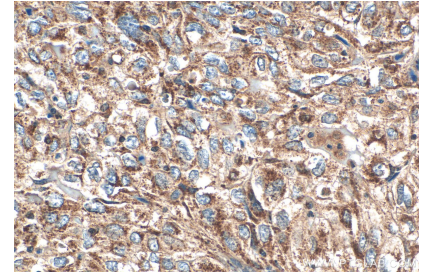
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 68524-1-Ig (MTHFD2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 68524-1-Ig (MTHFD2 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 human lung cancer tissue slide using 68524-1-Ig (MTHFD2 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).