

MTHFD2 Monoclonal antibody

Catalog Number: 68524-1-Ig

Basic Information

Catalog Number:

68524-1-Ig

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG2a

Immunogen Catalog Number:

AG33605

GenBank Accession Number:

BC017054

GeneID (NCBI):

10797

UNIPROT ID:

P13995

Full Name:

methylenetetrahydrofolate
dehydrogenase (NADP+ dependent) 2,
methenyltetrahydrofolate
cyclohydrolase

Calculated MW:

350 aa, 38 kDa

Observed MW:

33-38 kDa

Purification Method:

Protein A purification

CloneNo.:

1B4B6

Recommended Dilutions:

WB 1:5000-1:20000

IHC 1:250-1:1000

Applications

Tested Applications:

IHC, WB, ELISA

Species Specificity:

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: 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:

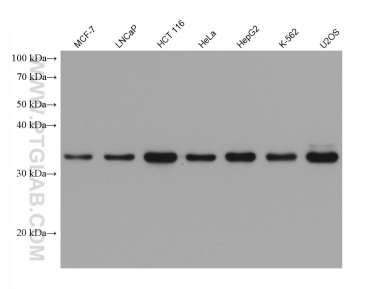
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

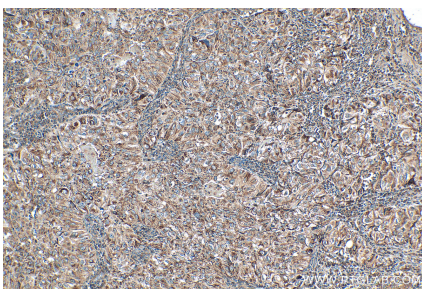
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

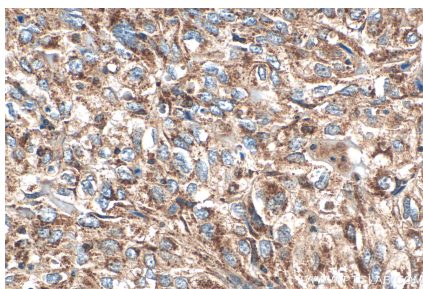
Selected Validation Data



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).