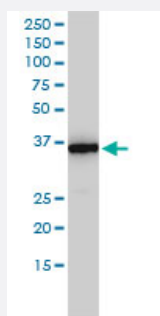


MTHFD2 monoclonal antibody (M01), clone 4G7-2G3

Catalog # H00010797-M01

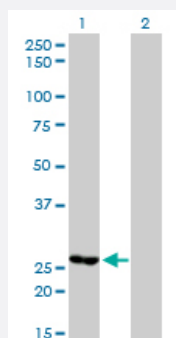
Size 100 ug

Applications



Western Blot (Cell lysate)

MTHFD2 monoclonal antibody (M01), clone 4G7-2G3 Western Blot analysis of MTHFD2 expression in HepG2 (Cat # L019V1).

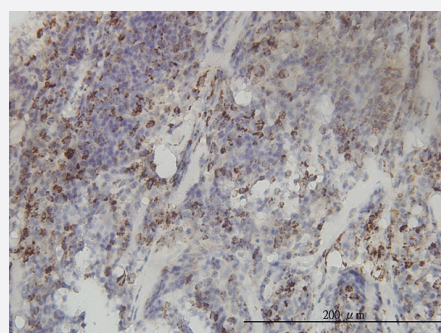


Western Blot (Transfected lysate)

Western Blot analysis of MTHFD2 expression in transfected 293T cell line by MTHFD2 monoclonal antibody (M01), clone 4G7-2G3.

Lane 1: MTHFD2 transfected lysate(26.8 KDa).

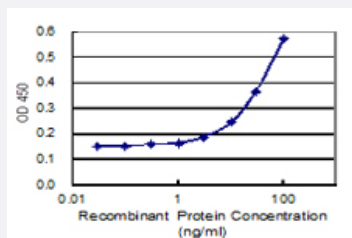
Lane 2: Non-transfected lysate.



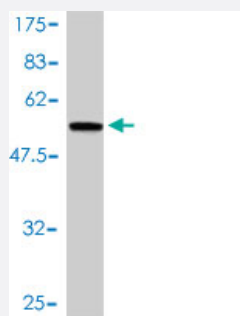
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to MTHFD2 on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 3 ug/ml]

Sandwich ELISA (Recombinant protein)



Detection limit for recombinant GST tagged MTHFD2 is 1 ng/ml as a capture antibody.



Western Blot detection against Immunogen (61.93 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant MTHFD2.
Immunogen	MTHFD2 (AAH01548, 16 a.a. ~ 344 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	SLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVQRQEEVWVASGNKRPHLSVILVGENPASHSYVL NKTRAAAVVGINSETIMKPASISSEELLNLINKLNDDNDVGLLVQLPLPEHIDERRICNAVSPDKDV DGFHVINVGRMCLDQYSMLPATPWGVWEIIRKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAH ERPGGDATVTISHRYTPKEQLKKHTILADVISAGIPNLITADMIKEGAVIDVGINRVHDPVTAKPKL VGDVDFEGVRQKAGYTPVPGVGPMTVAMLMKNTIAAKKVLRLLEEREVLKSKELGVATN
Host	Mouse
Reactivity	Human
Isotype	IgG2a kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (61.93 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

MTHFD2 monoclonal antibody (M01), clone 4G7-2G3 Western Blot analysis of MTHFD2 expression in HepG2 (Cat # L019V1).

[Protocol Download](#)

- Western Blot (Transfected lysate)

Western Blot analysis of MTHFD2 expression in transfected 293T cell line by MTHFD2 monoclonal antibody (M01), clone 4G7-2G3.

Lane 1: MTHFD2 transfected lysate(26.8 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to MTHFD2 on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged MTHFD2 is 1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

Gene Info — MTHFD2

Entrez GeneID	10797
GeneBank Accession#	BC001548
Protein Accession#	AAH01548
Gene Name	MTHFD2

Gene Alias	NMDMC
Gene Description	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase
Omim ID	604887
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a nuclear-encoded mitochondrial bifunctional enzyme with methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase activities. The enzyme functions as a homodimer and is unique in its absolute requirement for magnesium and inorganic phosphate. Formation of the enzyme-magnesium complex allows binding of NAD. Alternative splicing results in two different transcripts, one protein-coding and the other not protein-coding. This gene has a pseudogene on chromosome 7. [provided by RefSeq]
Other Designations	NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase methylene tetrahydrofolate dehydrogenase 2

Publication Reference

- [One carbon metabolism in human lung cancer.](#)

Sha Yao, Luogen Peng, Omar Elakad, Stefan Küffer, Marc Hinterthaler, Bernhard C Danner, Alexander von Hammerstein-Equord, Philipp Ströbel, Hanibal Bohnenberger.

Translational Lung Cancer Research 2021 Jun; 10(6):2523.

Application: IHC, Human, Human lung cancer tissues

- [Identification of theranostic factors for patients developing metastasis after surgery for early-stage lung adenocarcinoma.](#)

Wei-Chung Cheng, Chun-Yu Chang, Chia-Chien Lo, Chih-Ying Hsieh, Ting-Ting Kuo, Guan-Chin Tseng, Sze-Ching Wong, Shu-Fen Chiang, Kevin Chih-Yang Huang, Liang-Chuan Lai, Tzu-Pin Lu, K S Clifford Chao, Yuh-Pyng Sher.

Theranostics 2021 Jan; 11(8):3661.

Application: WB-Tr, Human, A-549, CL1-0 cells

Pathway

- [Glyoxylate and dicarboxylate metabolism](#)
- [Metabolic pathways](#)
- [One carbon pool by folate](#)

Disease

- [Adenocarcinoma](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Heart Defects](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Pulmonary Disease](#)
- [Spinal Dysraphism](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)