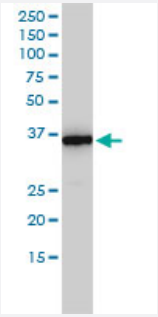
MTHFD2 monoclonal antibody (M01), clone 4G7-2G3

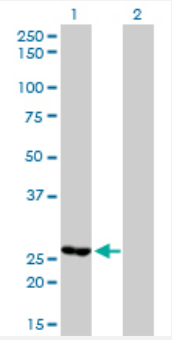
Catalog # H00010797-M01 Size 100 ug

Applications



Western Blot (Cell lysate)

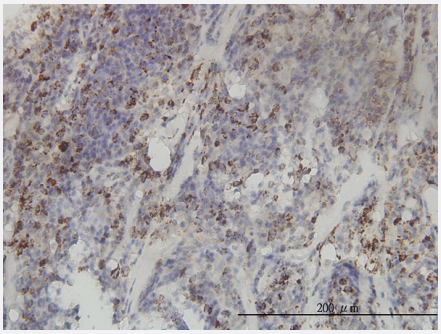
MTHFD2 monoclonal antibody (M01), clone 4G7-2G3 Western Blot analysis of MTHFD2 expression in HepG2 (Cat # L019V1).



Western Blot (Transfected lysate)

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

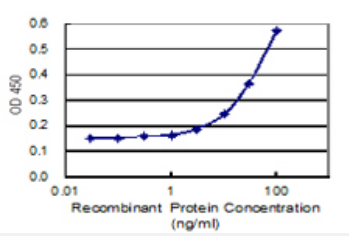
Lane 1: MTHFD2 transfected lysate(26.8 KDa).
Lane 2: Non-transfected lysate.



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

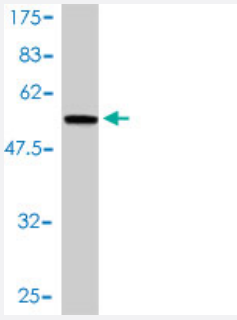
Immunoperoxidase of monoclonal antibody to MTHFD2 on formalin-fixed paraffin-embedded human lymphoma tissue. [antibody concentration 3 ug/ml]

Copyright © 2023 Abnova Corporation. All Rights Reserved.



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	SLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVRQEVEEWVASGNKRPHLSVILVGENPASHSYVL NKTRAAAVVGINSETIMKPASISEEELLNLINKLNNDDNVDGLLVQLPLPEHIDERRICNAVSPDKDV DGFHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAH ERPGGDATVTISHRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAAVIDVGINRVHDPVTAKPKL VGDVDFEGVRQKAGYITPVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN
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.

Copyright © 2023 Abnova Corporation. All Rights Reserved.

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

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Gene Alias	NMDMC
Gene Description	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclo hydrolase
Omim ID	604887
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a nuclear-encoded mitochondrial bifunctional enzyme with methylenetetrahydr ofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase activities. The enzyme functi ons as a homodimer and is unique in its absolute requirement for magnesium and inorganic phos phate. Formation of the enzyme-magnesium complex allows binding of NAD. Alternative splicing r esults in two different transcripts, one protein-coding and the other not protein-coding. This gene h as a pseudogene on chromosome 7. [provided by RefSeq
Other Designations	NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase|methylene tetrahydrof olate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase|methylene tetr ahydrofolate dehydrogenase 2

Publication Reference

- Downregulation of MTHFD2 Inhibits Proliferation and Enhances Chemosensitivity in Hepatocellular Carcinoma via PI3K/AKT Pathway.

  Jie Wang, Ze Yu, Yixiao Jiang, Ting Le, Yixin Wu, Ziqi Li, Guoqiang Zhang, Feiyue Wu, Haijie Ma.

  Frontiers in Bioscience-Landmark 2024 Jan; 29(1):35.

  Application: IHC, WB, Human, Human hepatocellular carcinoma tissue, SMMC-7721 cell lines, HepG2 HCC cell lines

- One carbon metabolism in human lung cancer.

  Sha Yao, Luogen Peng, Omar Elakad, Stefan Küffer, Marc Hinterthaner, 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

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- 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

Copyright © 2023 Abnova Corporation. All Rights Reserved.