

Datasheet for ABIN2782514  
**anti-MTHFD1 antibody (N-Term)**[2 Images](#)[1 Publication](#)[Go to Product page](#)

## Overview

Quantity:	100 µL
Target:	MTHFD1
Binding Specificity:	N-Term
Reactivity:	Human, Mouse, Rat, Rabbit, Horse, Zebrafish (Danio rerio), Dog, Guinea Pig, Cow
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MTHFD1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

## Product Details

Immunogen:	The immunogen is a synthetic peptide directed towards the N terminal region of human MTHFD1
Sequence:	RTTTESEVMK YITSLNEDST VHGFLVQLPL DSENSINTEE VINAIAPKED
Predicted Reactivity:	Cow: 92%, Dog: 92%, Guinea Pig: 92%, Horse: 92%, Human: 100%, Mouse: 100%, Rabbit: 85%, Rat: 100%, Zebrafish: 85%
Characteristics:	This is a rabbit polyclonal antibody against MTHFD1. It was validated on Western Blot using a cell lysate as a positive control.
Purification:	Affinity Purified

## Target Details

Target:	MTHFD1
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## Target Details

Alternative Name: MTHFD1 ([MTHFD1 Products](#))

Background: MTHFD1 possesses three distinct enzymatic activities, 5,10-methylenetetrahydrofolate dehydrogenase, 5,10-methenyltetrahydrofolate cyclohydrolase and 10-formyltetrahydrofolate synthetase. Each of these activities catalyzes one of three sequential reactions in the interconversion of 1-carbon derivatives of tetrahydrofolate, which are substrates for methionine, thymidylate, and de novo purine syntheses. The trifunctional enzymatic activities are conferred by two major domains, an aminoterminal portion containing the dehydrogenase and cyclohydrolase activities and a larger synthetase domain. This gene encodes a protein that possesses three distinct enzymatic activities, 5,10-methylenetetrahydrofolate dehydrogenase, 5,10-methenyltetrahydrofolate cyclohydrolase and 10-formyltetrahydrofolate synthetase. Each of these activities catalyzes one of three sequential reactions in the interconversion of 1-carbon derivatives of tetrahydrofolate, which are substrates for methionine, thymidylate, and de novo purine syntheses. The trifunctional enzymatic activities are conferred by two major domains, an aminoterminal portion containing the dehydrogenase and cyclohydrolase activities and a larger synthetase domain. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.

Alias Symbols: MTHFC, MTHFD

Protein Interaction Partner: UBC, FUS, SUMO2, SUMO3, NEDD8, MDM2, RPA3, RPA2, RPA1, RNF2, RPS21, MAT2A, UBQLN1, FBXO6, UBD, ADRB2, CD81, VCAM1, HSP90AA1, HSP90AB1, PRKCDBP, SFXN1, TMEM165, IARS2, SARS2, SF3B3, FAF2, PPT2, SNRNP70, RPL32, MRPL23, ALDH18A1, PRPH, PC, ICT1, GAA, ACSL3,

Protein Size: 935

Molecular Weight: 101 kDa

Gene ID: 4522

NCBI Accession: [NM\\_005956](#), [NP\\_005947](#)

UniProt: [P11586](#)

Pathways: [Methionine Biosynthetic Process](#)

## Application Details

Application Notes: Optimal working dilutions should be determined experimentally by the investigator.

Comment: Antigen size: 935 AA

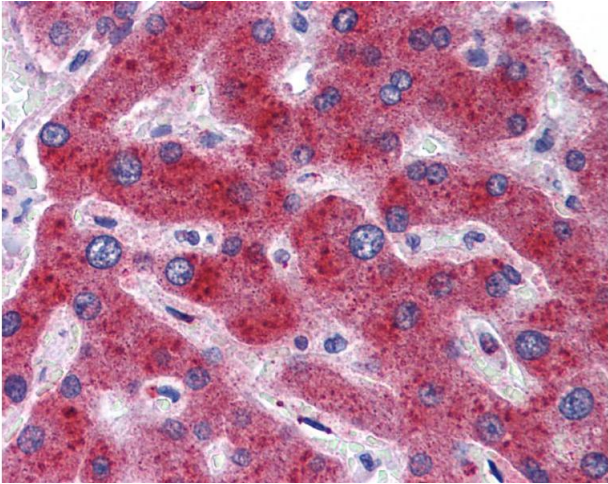
Restrictions: For Research Use only

## Handling

Format:	Liquid
Concentration:	Lot specific
Buffer:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

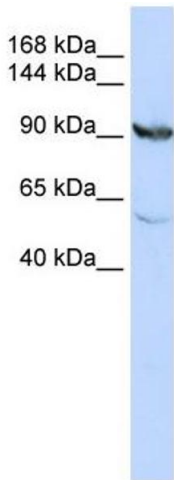
## Publications

Product cited in:	<p>Rayegan, Dehpour, Sharifi: "Studying neuroprotective effect of Atorvastatin as a small molecule drug on high glucose-induced neurotoxicity in undifferentiated PC12 cells: role of NADPH oxidase." in: <b>Metabolic brain disease</b>, Vol. 32, Issue 1, pp. 41-49, (2016) (<a href="#">PubMed</a>).</p> <p>Kuwano, Kawahara, Yamamoto, Teshima-Kondo, Tominaga, Masuda, Kishi, Morita, Rokutan: "Interferon-gamma activates transcription of NADPH oxidase 1 gene and upregulates production of superoxide anion by human large intestinal epithelial cells." in: <b>American journal of physiology. Cell physiology</b>, Vol. 290, Issue 2, pp. C433-43, (2006) (<a href="#">PubMed</a>).</p>
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Immunohistochemistry

Image 1.



Western Blotting

**Image 2.** WB Suggested Anti-MTHFD1 Antibody Titration: 0.2-1 ug/ml ELISA Titer: 1:12500 Positive Control: HepG2 cell lysate MTHFD1 is supported by BioGPS gene expression data to be expressed in HepG2