

## Recombinant Human MTHFD2 293 Cell Lysate

**Cat. No.** MTHFD2-4082HCL    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>              | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>         | Antigen standard for methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase (MTHFD2), nuclear gene encoding mitochondrial protein, transcript variant 2 is a lysate prepared from HEK293T cells transiently transfected with a TrueORF gene-carrying pCMV plasmid and then lysed in RIPA Buffer. Protein concentration was determined using a colorimetric assay. The antigen control carries a C-terminal Myc/DDK tag for detection. |
| <b>Components</b>          | This product includes 3 vials: 1 vial of gene-specific cell lysate, 1 vial of control vector cell lysate, and 1 vial of loading buffer. Each lysate vial contains 0.1 mg lysate in 0.1 ml (1 mg/ml) of RIPA Buffer (50 mM Tris-HCl pH7.5, 250 mM NaCl, 5 mM EDTA, 50 mM NaF, 1% NP40). The loading buffer vial contains 0.5 ml 2X SDS Loading Buffer (125 mM Tris-Cl, pH6.8, 10% glycerol, 4% SDS, 0.002% Bromophenol blue, 5% beta-mercaptoethanol).                               |
| <b>Size</b>                | 0.1 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage Instruction</b> | Store at -80°C. Minimize freeze-thaw cycles. After addition of 2X SDS Loading Buffer, the lysates can be stored at -20°C. Product is guaranteed 6 months from the date of shipment.                                                                                                                                                                                                                                                                                                 |

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**Applications**

ELISA, WB, IP. WB: Mix equal volume of lysates with 2X SDS Loading Buffer. Boil the mixture for 10 min before loading (for membrane protein lysates, incubate the mixture at room temperature for 30 min). Load 5 ug lysate per lane.

**GENE INFORMATION**
**Gene Name**

MTHFD2 methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase [ Homo sapiens ]

**Official Symbol**

MTHFD2

**Synonyms**

MTHFD2; methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase; bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondrial; NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase; NMDMC;

**Gene ID**

10797

**mRNA Refseq**

NM\_001040409

**Protein Refseq**

NP\_001035499

**MIM**

604887

**UniProt ID**

P13995

**Chromosome  
Location**

2p13.1

**Pathway**

C1-unit interconversion, eukaryotes, organism-specific biosystem; C1-unit interconversion, eukaryotes, conserved biosystem; Metabolic pathways, organism-

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specific biosystem; Nucleotide Metabolism, organism-specific biosystem; One Carbon Metabolism, organism-specific biosystem; One carbon pool by folate, organism-specific biosystem; One carbon pool by folate, conserved biosystem;

**Function**

hydrolase activity; magnesium ion binding; methenyltetrahydrofolate cyclohydrolase activity; methylenetetrahydrofolate dehydrogenase (NAD<sup>+</sup>) activity; methylenetetrahydrofolate dehydrogenase (NADP<sup>+</sup>) activity; methylenetetrahydrofolate dehydrogenase (NADP<sup>+</sup>) activity; nucleotide binding; oxidoreductase activity; phosphate ion binding;

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