

Recombinant Human MTHFD1 cell lysate

Cat. No. MTHFD1-1146HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Description	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.
Size	100 ul
Storage Buffer	1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)
Applications	Western Blot;

GENE INFORMATION

Gene Name	MTHFD1 methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1, methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase [Homo sapiens]
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Official Symbol	MTHFD1
Synonyms	MTHFD1; methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1, methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase; MTHFC, MTHFD; C-1-tetrahydrofolate synthase, cytoplasmic; C1-THF synthase; cytoplasmic C-1-tetrahydrofolate synthase; 5,10-methylenetetrahydrofolate dehydrogenase, 5,10-methylenetetrahydrofolate cyclohydrolase, 10-formyltetrahydrofolate synthetase; MTHFC; MTHFD;
Gene ID	4522
mRNA Refseq	NM_005956
Protein Refseq	NP_005947
MIM	172460
UniProt ID	P11586
Chromosome Location	14q24
Pathway	C1-unit interconversion, eukaryotes, organism-specific biosystem; C1-unit interconversion, eukaryotes, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of folate and pterines, organism-specific biosystem; Metabolism of vitamins and cofactors, organism-specific biosystem; Metabolism of water-soluble vitamins and cofactors, organism-specific biosystem;
Function	ATP binding; formate-tetrahydrofolate ligase activity; hydrolase activity; ligase activity; methenyltetrahydrofolate cyclohydrolase activity; methylenetetrahydrofolate

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dehydrogenase (NADP+) activity; methylenetetrahydrofolate dehydrogenase
[NAD(P)+] activity; nucleotide binding; oxidoreductase activity;

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