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# Recombinant human MTHFS protein

Catalog Number: ATGP0976

#### PRODUCT INFORMATION

# **Expression system**

E.coli

#### **Domain**

1-203aa

#### **UniProt No.**

P49914

#### **NCBI Accession No.**

NP 006432

#### **Alternative Names**

5-formyltetrahydrofolate cyclo-ligase, Methenyl-THF synthetase

## PRODUCT SPECIFICATION

### **Molecular Weight**

25.4 kDa (223aa) confirmed by MALDI-TOF

#### Concentration

0.5mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 5mM DTT, 30% glycerol, 0.2M NaCl

#### **Purity**

> 95% by SDS-PAGE

#### Tag

His-Tag

## **Application**

SDS-PAGE

# **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

#### **BACKGROUND**

#### **Description**

MTHFS, also known as 5-formyltetrahydrofolate cyclo-ligase, is a cytosolic protein involved in the formate metabolic process. MTHFS, with a magnesium cofactor, catalyzes the ATP-dependent reaction that reduces 5-formyltetrahydrofolate (5-MTHF) to 5, 10-methenyltetrahydrofolate (MTHF). MTHF is the substrate used by MTHFR (methylenetetrahydrofolate reductase) to generate 5-MTHF. MTHF is also a coenzyme used in thymidine biosynthesis by thymidylate synthase (FAD). Recombinant human MTHFS protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



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# **Amino acid Sequence**

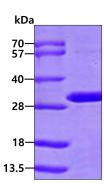
<MGSSHHHHHH SSGLVPRGSH M>AAAAVSSAK RSLRGELKQR LRAMSAEERL RQSRVLSQKV IAHSEYQKSK RISIFLSMQD EIETEEIIKD IFQRGKICFI PRYRFQSNHM DMVRIESPEE ISLLPKTSWN IPQPGEGDVR EEALSTGGLD LIFMPGLGFD KHGNRLGRGK GYYDAYLKRC LQHQEVKPYT LALAFKEQIC LQVPVNENDM KVDEVLYEDS STA

#### **General References**

Field, M.S., et al. (2006) J. Biol. Chem. 281: 4215-4221. Lim, u., et al. (2007) Blood 109: 3050-3059.

# **DATA**

### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

