

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 EIETEEIKD IFQRGKICFI PRYRFQSNHM DMVRIESPEE ISLLPKTSWN IPQPGEGDVR EEALSTGGLD
LIFMPGLGFD KHGNRLGRGK GYYDAYLKRC LQHQEVPYT LALAFKEQIC LQVPVNENDM KVDEVLYEDS STA

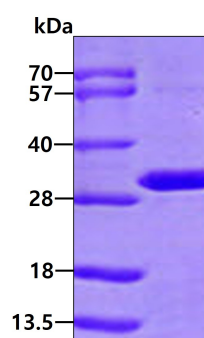
General References

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.