

# Recombinant human MTHFD2 protein

Catalog Number: ATGP2972

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

30-350aa

### UniProt No.

P13995

### NCBI Accession No.

NP\_006627.2

### Alternative Names

Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase mitochondrial, Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondrial, NMDMC

## PRODUCT SPECIFICATION

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### Molecular Weight

37.2 kDa (344aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol, 1mM DTT

### 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

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### Description

MTHFD2 also known as Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondrial. MTHFD2 protein that possesses three distinct enzymatic activities, methylenetetrahydrofolate dehydrogenase, methenyltetrahydrofolate cyclohydrolase and formate-tetrahydrofolate ligase. 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. Recombinant human MTHFD2, fused to

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His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

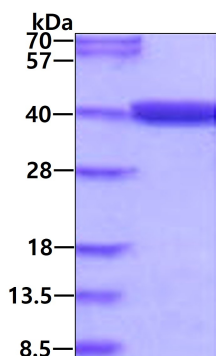
<MGSSHHHHHH SSGLVPRGSH MGS>LA AVRNE AVVISGRKLA QQIKQEV RQE VEEWVASGNK RPHLSVILVG  
ENPASHSYVL NKTRAAAVVG INSETIMKPA SISEEELLNL INKLNDDNV DGLLVQLPLP EHIDERRICN AVSPDKDVDG  
FHVINVGRMC LDQYSMLPAT PWGVWEIIR TGIPTLGKNV VVAGRSKNVG MPIAMLLHTD GAHERPGGDA TVTISHRYTP  
KEQLKKHTIL ADIVISAAGI PNLITADMIK EGAVIDVGI NRVHDPVTAK PKLVGDVDFE GVRQKAGYIT PVPGGVGPMT  
VAMLMKNTII AAKKVLRL EE REVLKSKELG VATN

## General References

Watkins D., et al. (2011) Genet. 48 (9): 590-2.

## DATA

### SDS-PAGE



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