Recombinant human Dihydrofolate Reductase/DHFR protein

Catalog Number: ATGP0371

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-187aa

UniProt No.
P00374

NCBI Accession No.
NP_000782.1

Alternative Names
Dihydrofolate reductase, EC 1.5.1.3

PRODUCT SPECIFICATION

Molecular Weight
23.6 kDa (207aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M Nacl 2mM DTT, and 30% glycerol

Purity
> 95% by SDS-PAGE

Biological Activity
Specific activity is > 2000pmol/min/ug, and is defined as the amount of enzyme that converts 1.0pmole of dihydrofolic acid to tetrahydrofolic acid per minute at pH 6.5 at 25C.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

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
DHFR, also known as Dihydrofolate reductase, is an enzyme that reduces dihydrofolic acid to tetrahydrofolic acid, using NADPH as electron donor, which can be converted to the kinds of tetrahydrofolate cofactors used in 1-carbon transfer chemistry. Dihydrofolate reductase deficiency has been linked to megaloblastic anemia.

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Recombinant Dihydrofolate reductase protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

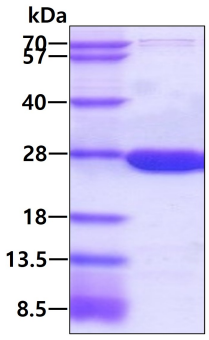
<MGSSHHHHHH SSGLVPRGSH> MVGSLNCIVA VSQNMGIGKN GDLPWPPLRN EFRYFQRMTT TSSVEGKQNL VIMGKKTWFS IPEKNRPLKG RINLVLSREL KEPPQGAHFL SRSLDDALKL TEQPELANKV DMVWIVGGSS VYKEAMNHPG HLKLFVTRIM QDFESDTFFP EIDLEKYKLL PEYPGVLSDV QEEKGIKYKF EVYEKND

General References

Loveridge EJ., et al. (2009) Biochemistry. 48(25):5922-33.
Hu Y., et al. (2009) J Cell Biol. 185(1):87-100.

DATA

SDS-PAGE



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