Recombinant Mouse Dihydrofolate Reductase, His-tagged

Cat. No. Dhfr-3422M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse DHFR protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Mouse
Source	E.coli
Description	Dihydrofolate reductase (DHFR) is a member of the reductase family of enzymes that is ubiquitously expressed in all organisms. DHFR catalyzes the NADPH-dependent reduction of dihydrofolate to tetrahydrofolate, and it is essential for the synthesis of thymidylate, purines and several amino acids. Expression of methotrexate (MTX)-resistant variants of DHFR in normal hematopoietic cells is a potential strategy to permit administration of larger doses of MTX by alleviating drug toxicity in normal cells and tissues that are drug sensitive.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2mM DTT, 0.1M NaCl.
Molecular Weight	23.8 kDa (207aa) confirmed by MALDI-TOF.
Purity	> 95% by SDS - PAGE.
Concentration	1 mg/ml (determined by Bradford assay)
Sequences Of Amino	MGSSHHHHHH SSGLVPRGSH MVRPLNCIVA VSQNMGIGKN GDLPWPPLRN EF

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Acids	KYFQRMTT TSSVEGKQNL VIMGRKTWFS IPEKNRPLKD RINIVLSREL KE PP RG AHFL AKSLDDALRL IEQPELASKV DMVWIVGGSS VYQEAMNQPG HL RL FV TRIM QEFESDTFFP EIDLGKYKLL PEYPGVLSEV QEEKGIKYKF EVYEKKD.
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	Metabolic pathways; Folate biosynthesis; One carbon pool by folate

GENE INFORMATION

Gene Name	Dhfr dihydrofolate reductase [Mus musculus]
Synonyms	dihydrofolate reductase; AA607882; AI662710; AW555094; 8430436I03Rik; Dhfr
Gene ID	13361
mRNA Refseq	NM_010049
Protein Refseq	NP_034179
UniProt ID	P00375
Chromosome Location	13 C3; 13 43.0 cM
Function	NADP or NADPH binding; dihydrofolate reductase activity; dihydrofolic acid binding; drug binding; oxidoreductase activity

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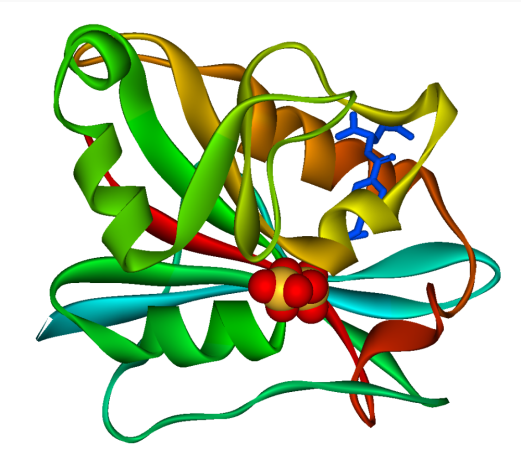
Ribbon diagram of human dihydrofolate reductase in complex withfolate(blue). FromPDB1DRF.



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