

Active Recombinant Full Length Mouse Dhfr Protein, His tagged

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

SPECIFICATION

Product Overview	Recombinant mouse DHFR protein (1-187aa), fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Mouse
Source	E.coli
ProteinLength	1-187aa
Description	Enables dihydrofolate reductase activity and folate reductase activity. Involved in several processes, including positive regulation of nitric-oxide synthase activity; tetrahydrobiopterin biosynthetic process; and tetrahydrofolate metabolic process. Acts upstream of or within dTMP biosynthetic process. Located in mitochondrion. Is active in cytosol and nucleus. Is expressed in several structures, including genitourinary system; hemolymphoid system; integumental system; limb; and nervous system. Human ortholog(s) of this gene implicated in acute lymphoblastic leukemia. Orthologous to several human genes including DHFR (dihydrofolate reductase).
Form	Liquid in 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2mM DTT, 0.1M NaCl.
Bio-activity	Specific activity is > 2000 pmol/min/μg, and is defined as the amount of enzyme that converts 1.0 pmole of dihydrofolic acid to tetrahydrofolic acid per minute at pH 6.5 at 25 centigrade.

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Molecular Mass	23.8 kDa (207aa) confirmed by MALDI-TOF
AASequence	< MGSSHHHHHHSSGLVPRGSH>MVRPLNCIVAVSQNMGIGKNGDLPWPPLRNEFK YFQRMTTSSVEGKQNLVIMGRKTFWFSIPEKNRPLKDRINIVLSRELKEPPRGHFLA KSLDDALRLIEQPELASKVDMVWIVGGSSVYQEAMNQPGHLRLFVTRIMQEFESDTF FPEIDLGKYKLLPEYPGVLSEVQEEKGIKYKFEVYEKKD
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 95% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Notes	For research use only. This product is not intended or approved for human, diagnostics or veterinary use.
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/mL (determined by Bradford assay)
Reference	1. Chen MJ., et al. (1984) J Biol Chem. 259(6):3933-43. 2. Cody V., et al. (2009) Biochemistry. 48(8):1702-11.

GENE INFORMATION

Gene Name	Dhfr dihydrofolate reductase [<i>Mus musculus</i>]
Official Symbol	Dhfr
Synonyms	DHFR; dihydrofolate reductase; AA607882; AI662710; AW555094; 8430436I03Rik;

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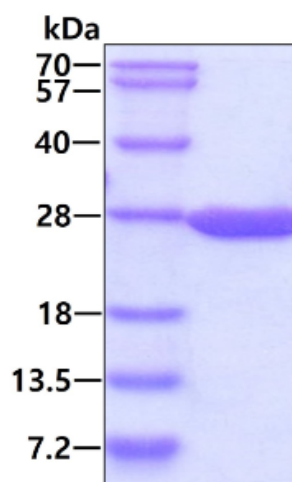
Gene ID 13361

mRNA Refseq NM_010049

Protein Refseq NP_034179

UniProt ID P00375

SDS-PAGE



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

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