

Human Recombinant DHFR

CATALOG #:	6382-100	100 µg
ALTERNATE NAMES:	Dihydrofolate reductase.	
SOURCE:	E.Coli	
PURITY:	> 95% by SDS - PAGE	
MOL. WEIGHT:	23.6 kDa (207 aa, 1-187 aa + NT His-Tag)	
FORMULATION:	1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 0.1 M NaCl, 2 mM DTT and 30% glycerol.	
ENDOTOXIN LEVEL:	< 1.0 EU per 1 µg of protein (determined by LAL method)	

STORAGE CONDITIONS:

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.

DESCRIPTION:

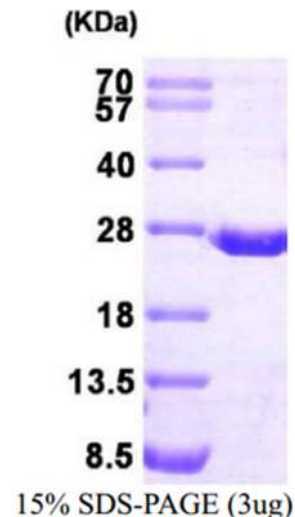
DHFR, also known as Dihydrofolate reductase, is an enzyme that reduces dihydrofolic acid to tetrahydrofolic acid, using NADPH as electron donor, which can be converted to tetrahydrofolate cofactors used in 1-carbon transfer chemistry. Dihydrofolate reductase deficiency has been linked to megaloblastic anemia. Human dihydrofolate reductase has been used in a study to investigate the stable expression of green fluorescent protein and the targeted disruption of thioredoxin peroxidase-1 gene in Babesia bovis. Human dihydrofolate reductase has also been used in a study to investigate the structural analysis of human dihydrofolate reductase as a binary complex.

AMINO ACID SEQUENCE:

MGSSHHHHHH SSGLVPRGSH MVGSLNCIVA VSQNMIGIGN GDLWPPLRN
EFYRQRMFTT TSSVEGKQNL VMGKKTWFS IPEKNRPLKG RINLVLSREL KEPPQGAHFL
SRSLDDALKL TEQPELANKV DMWVIVGGSS VYKEAMNHPG HLKLFVTRIM QDFESDTFFP
EIDLEKYKLL PEYPGVLSDV QEEKGIKYKF EYVEKND

BIOLOGICAL ACTIVITY:

Specific activity is 1.5 - 2.5 units/ml and was obtained by measuring the oxidation of NADPH in absorbance at 340 nm during reaction. One unit will convert 1.0 µmole of 7, 8 dihydrofolate and beta-NADPH to 5, 6, 7, 8-tetrahydrofolate and beta-NADP per minute at pH 6.5 at 25°C.



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RELATED PRODUCTS:

- Mouse Recombinant DHFR (Cat. No. 6383-100)

FOR RESEARCH USE ONLY! Not to be used in humans.