

DHFR, 1-187aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0371

Full name: Dihydrofolate reductase

NCBI Accession No.: NP_000782.1

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

Form: Liquid. In 20mM Tris-HCl buffer(pH 8.0) containing 30% glycerol, 2mM DTT, 0.1M NaCl.

Molecular Weight: 23.6 kDa (207aa)

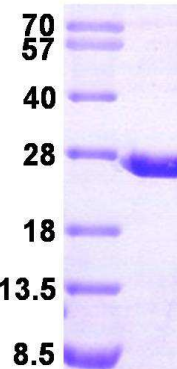
Purity: > 95% by SDS - PAGE

Concentration: 1mg/ml (determined by Bradford assay)

Endotoxin Level: < 1.0 EU per 1 µg of protein (determined by LAL method)

Biological activity: Specific activity is > 3500 pmol/min/ug, 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 25C.

(KDa)



15% SDS-PAGE (3ug)

Sequences of aminoacids:

MGSSHHHHHH SSSLVPRGSH MVGSLNCIVA VSQNMIGIKN GDLWPPLRN EFRYFQRMTT TSSVEGKQNL VIMGKKTWFS IPEKNRPLKG
RINLVLSREL KEPPQGAHFL SRSDDALKL TEQPELANKV DMVWIVGGSS VYKEAMNHPG HLKLFVTRIM QDFESDTFFP EIDLEKYKLL
PEYPGVLSOV QEEKGIKYKF EVYEKND

General references:

Loveridge E.J., *et al.* (2009) *Biochemistry*. 48(25):5922-33.

Hu Y., *et al.* (2009) *J Cell Biol.* 185(1):87-100.

Hillcoat, B.L., Noxon, P.F., and Blakely, R.F., (1967) *Anal. Biochem.* 21, 178-189.

Peterson, D.L., gleisner, J.M., and Blakely, R.F.(1975) *Biochemistry* 14, 5261-5267.

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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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