

Bioactive

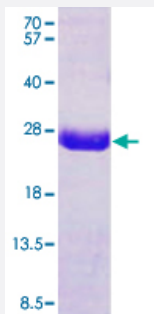
Full-Length

DHFR (Human) Recombinant Protein

Catalog # P3492

Size 100 ug

Applications



Specification

Product Description

Human DHFR (NP_000782.1, 1 a.a. - 187 a.a.) full-length recombinant protein with His tag expressed in *Escherichia coli*.

Sequence

MGSSHHHHHHSSGLVPRGSHMVGSLNCIVAVSQNMGIGKNGDLPWPPLRNEFRYFQRMTTSS
VEGKQNLVIMGKKTWFSIPEKNRPLKGRINLVLSRELKEPPQGAHFLSRSLDDALKLTEQPELANK
VDMVWIVGGSSVYKEAMNHPGHLKLFVTRIMQDFESDTFFPEIDLEKYKLLPEYPGVLSDVQEEK
GIKYKFEVYEKND

Host

Escherichia coli

Theoretical MW (kDa)

23.6

Form

Liquid

Preparation Method

Escherichia coli expression system

Purification

Conventional Chromatography

Concentration

1 mg/mL

Purity

> 95% by SDS-PAGE

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 umole of 7,8 dihydrofolate and beta-NADP H to 5,6,7,8-tetrahydrofolate and beta-NADP per minute at
Quality Control Testing	Loading 3 ug protein in 15% SDS-PAGE
Storage Buffer	In 20 mM Tris-HCl buffer, 0.1 M NaCl, pH 8.0 (2 mM DTT, 30% glycerol).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — DHFR

Entrez GeneID	1719
Protein Accession#	NP_000782.1
Gene Name	DHFR
Gene Alias	-
Gene Description	dihydrofolate reductase
Omim ID	126060
Gene Ontology	Hyperlink
Gene Summary	Dihydrofolate reductase converts dihydrofolate into tetrahydrofolate, a methyl group shuttle required for the de novo synthesis of purines, thymidylc acid, and certain amino acids. While the functional dihydrofolate reductase gene has been mapped to chromosome 5, multiple intronless processed pseudogenes or dihydrofolate reductase-like genes have been identified on separate chromosomes. Dihydrofolate reductase deficiency has been linked to megaloblastic anemia. [provided by RefSeq]
Other Designations	-

Pathway

- [Biosynthesis of phenylpropanoids](#)
- [Folate biosynthesis](#)
- [Metabolic pathways](#)
- [One carbon pool by folate](#)

Disease

- [Adrenoleukodystrophy](#)
- [Alcoholism](#)
- [Arthritis](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Connective Tissue Diseases](#)
- [Coronary Artery Disease](#)
- [Demyelinating Diseases](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Ductus Arteriosus](#)
- [Edema](#)

- [Fetal Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Hearing Loss](#)
- [Heart Defects](#)
- [Hypertension](#)
- [Infant](#)
- [Infection](#)
- [Inflammation](#)
- [Intracranial Aneurysm](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lymphoma](#)
- [Metabolic Diseases](#)
- [Microsatellite Instability](#)
- [Musculoskeletal Diseases](#)
- [Neoplasms](#)
- [Neural Tube Defects](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)

- [Schizophrenia](#)
- [Skin Diseases](#)
- [Spinal Dysraphism](#)
- [Thrombosis](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)