

Product datasheet for **AR09254PU-L**

DHFR / DHFRP1 (1-187, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	DHFR / DHFRP1 (1-187, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MVGSLNCIVA VSQNMGIGKN GDLWPWPLRN EFRYFQRM TT TSSVEGKQNL VIMGKKTWFS IPEKNRPLKG RINLVLSREL KEPPQGAHFL SRSLDDALKL TEQPELANKV DMVWIVGGSS VYKEAMNHPG HCLKLVTRIM QDFESDTFFP EIDLEKYKLL PEYPGVLSDV QEEKGIKYKF EVYEKND
Tag:	His-tag
Predicted MW:	23.6 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.1 M NaCl, 2 mM DTT, and 30% glycerol
Bioactivity:	Biological: 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-NADPH to 5,6,7,8-tetrahydrofolate and beta-NADP per minute at pH 6.5 at 25°C. <u>Activity Assay</u> 1. Prepare a 3.2 ml reaction mixture into a suitable container: The final concentrations are 50 mM potassium phosphate, 0.72 mM DHFA, 0.1mM beta-NADPH, 0.003% (w/v) BSA. 2. Equilibrate to 25°C and monitor the A340nm until the value is constant using a spectrophotometer. 3. Add 2.5 ug of recombinant DHFR into reaction mixture and mix immediately. 4. Record the increase in A340nm for 2 minutes.
Endotoxin:	< 1.0 EU per 1 µg of protein (determined by LAL method)
Preparation:	Liquid purified protein



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Protein Description:	Recombinant Dihydrofolate reductase protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_000782
Locus ID:	1719
UniProt ID:	P00374
Cytogenetics:	5q14.1
Synonyms:	Dihydrofolate reductase
Summary:	Dihydrofolate reductase converts dihydrofolate into tetrahydrofolate, a methyl group shuttle required for the de novo synthesis of purines, thymidylic 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. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2014]
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Folate biosynthesis, Metabolic pathways, One carbon pool by folate

Product images: