

Product datasheet for **AR51950PU-N**

gldA (1-367, His-tag) Escherichia coli Protein

Product data:

Product Type:	Recombinant Proteins
Description:	gldA (1-367, His-tag) recombinant protein, 0.1 mg
Species:	Escherichia coli
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MGSMDRIIQS PGKYIQGADV INRLGEYLKP LAERWLWVGD KFVLGFAQST VEKSFKDAGL VVEIAPFGGE CSQNEIDRLR GIAETAQCGA ILGIGGGKTL DTAKALAHFM GVPVAIAPTI ASTDAPCSAL SVIYTDEGEF DRYLLLNNP NMVIVDTKIV AGAPARLLAA GIGDALATWF EARACSRSGA TTMAGGKCTQ AALALAEFCY NTLLEEGERA MLAAEQHVVT PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGEKQAF GTLTQLVLEN APVEEIVTA ALSHAVGLPI TLAQLDIKED VPAKMRIVAE AACAEGETIH NMPGGATPDQ VYAALLVADQ YGQRFLQWE
Tag:	His-tag
Predicted MW:	41.1 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: Phosphate buffered saline (pH 7.4), 10% glycerol
Bioactivity:	Specific: > 14 Units/ml One unit will oxidize 1.0 umole of glycerol to dihydroxyacetone per minute at pH 8.0 at 25C
Preparation:	Liquid purified protein
Applications:	Protocol: 1. Prepare a 200ul reaction mix into a suitable container: The final concentrations are 93mM Glycine, 93mM Potassium chloride, 2375mM Glycerol, 3mM b-NAD. 2. Equilibrate to 25C and monitor at A340nm until the value is constant using a spectrophotometer. 3. Add 20ul of recombinant gldA protein with various concentrations (0.2ug, 0.1ug, 0.05ug) in 180ul reaction buffer. 4. Mix by inversion and record the decrease at A340nm for 10 minutes.



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Protein Description:	Recombinant E. coli gldA 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 one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Synonyms:	Glycerol dehydrogenase, ECK3937, JW5556
Summary:	gldA catalyzes the NAD-dependent oxidation of glycerol to dihydroxyacetone (glycerone). This protein allows microorganisms to utilize glycerol as a source of carbon under anaerobic conditions. In E.coli, an important role of GldA is also likely to regulate the intracellular level of dihydroxyacetone by catalyzing the reverse reaction, i.e. the conversion of dihydroxyacetone into glycerol. gldA possesses a broad substrate specificity, since it is also able to oxidize 1,2-propanediol and to reduce glycolaldehyde, methylglyoxal and hydroxyacetone into ethylene glycol, lactaldehyde and 1,2-propanediol, respectively.
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Product images:

