

Recombinant E.coli glycerol dehydrogenase, NAD, His-tagged

Cat. No. gldA-601E Lot. No. (See product label)

SPECIFICATION

Product Overview	gldA, 1-367aa, E. coli, His tag, E.coli
Species	E.coli
Source	E.coli
ProteinLength	1-367 a.a.
Description	<p>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. Recombinant E. coli gldA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.</p>
Form	Liquid. In Phosphate buffered saline (pH7.4), 10% glycerol
Molecular Mass	41.1 kDa (390aa) confirmed by MALDI-TOF
AA Sequence	<p>MGSSHHHHHH SGLVPRGSH MGSM DRIIQS PGKYIQGADV INRLGEYLKP LAERWLVVGD KFVLGFAQST VEKSFKDAGL VVEIAPFGGE CSQNEIDRLR</p>

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GIAETAQCGA ILGIGGGKTL DTAKALAHFM GVPVAIAPTI ASTDAPCSAL
SVIYTDEGEF DRYLLLNNP NMVIVDTKIV AGAPARLLAA GIGDALATWF
EARACSRSGA TTMAGGKCTQ AALALAEFCY NTLLEEGERA MLAAEQHVVT
PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGEKQAF
GTLTQLVLEN APVEEIVTVA ALSHAVGLPI TLAQLDIKED VPAKMRIVAE
AACAEGETIH NMPGGATPDQ VYAALLVADQ YGQRFLQEW

Purity	>95% by SDS - PAGE
Storage	Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	gldA?glycerol dehydrogenase, NAD [?Escherichia coli str. K-12 substr. MG1655?]
Official Symbol	gldA
Synonyms	gldA ; ECK3937 ; JW5556 ; glycerol dehydrogenase, NAD ; NP_418380.4 ; EC 1.1.1.6 ; glycerol dehydrogenase, (NAD)
Gene ID	948440
Protein Refseq	NP_418380
Pathway	Glycerolipid metabolism ; Metabolic pathways ; superpathway of methylglyoxal degradation

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