

AR51644PU-N**gldA (1-367, His-tag) - Purified****Alternate names:**

ECK3937, Glycerol dehydrogenase, JW5556

Quantity:

0.5 mg

Concentration:

1.0 mg/ml (determined by Bradford assay)

Background:

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.

Uniprot ID:[POA9S5](#)**NCBI:**[NP_418380](#)**GeneID:**[948440](#)**Source:**

E. coli

Format:**State:** Liquid purified protein**Purity:** >95% by SDS - PAGE**Buffer System:** Phosphate buffered saline (pH7.4), 10% glycerol.**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.

AA Sequence:

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MGSSHHHHHH SSGLVPRGSH MGSMDRIQS PGKYIQGADV INRLGEYLKP LAERWLVVGD
KFVLFQAQST VEKSFKDAGL VVEIAPFGGE CSQNEIDRLR GIAETAQCGA ILGIGGGKTL
DTAKALAHFM GVPVAIAPTI ASTDAPCSAL SVIYTDEGEF DRYLLLPNNP NMVIVDTKIV
AGAPARLLAA GIGDALATWF EARACSRSGA TTMAGGKCTQ AALALAEFCY NTLLEEGEKA
MLAAEQHVVT PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGEKVAF
GTLTQLVLEN APVEEIIETVA ALSHAVGLPI TLAQLDIKED VPAKMRIVAE AACAEGETIH
NMPGGATPDQ VYAALLVADQ YGQRFLQEW
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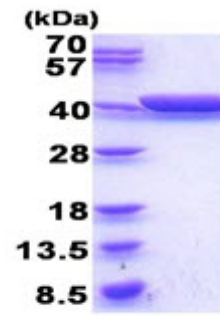
Molecular weight: 41.1 kDa (390aa) confirmed by MALDI-TOF**Storage:**

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. Shelf life: one year from despatch.

General Readings:

Subedi K.P., et al. (2008) FEMS Microbiol. Lett. 279:180-187 Gonzalez R., et al. (2008) Metab. Eng. 10:234-245

Pictures:



15% SDS-PAGE (3ug)