

Recombinant e.coli gldA protein

Catalog Number: ATGP2824

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-367aa

UniProt No.

P0A9S5

NCBI Accession No.

NP_418380

Alternative Names

Glycerol dehydrogenase, ECK3937, JW5556

PRODUCT SPECIFICATION

Molecular Weight

41.1 kDa (390aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) 10% glycerol

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

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-

Recombinant e.coli gldA protein

Catalog Number: ATGP2824

terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSSLVPRGSH MGSMDRIIQS PGKYIQGADV INRLGEYLKP LAERWLVVGD KFLVGFQAQST VEKSFKDAGL
VVEIAPFGGE CSQNEIDRLR GIAETAQCGA ILGIGGGKTL DTAKALAHFM GVPVAIAPTI ASTDAPCSAL SVIYTDEGEF
DRYLLLNNP NMVIVDTKIV AGAPARLLAA GIGDALATWF EARACSRSGA TTMAGGKCTQ AALALAEALCY NTLLEEGEKA
MLAAEQHVVT PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGKQVAF GTLTQLVLEN APVEEIIETVA
ALSHAVGLPI TLAQLDIKED VPAKMRIVAE AACAEGETIH NMPGGATPDQ VYAALLVADQ YGQRFLQEW

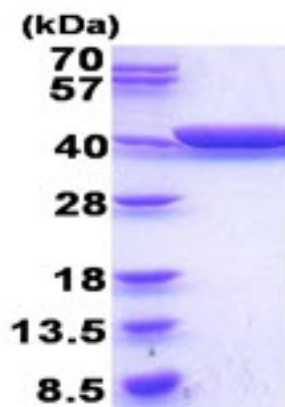
General References

Subedi K.P., et al. (2008) FEMS Microbiol. Lett. 279:180-187

Gonzalez R., et al. (2008) Metab. Eng. 10:234-245

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)