Active Recombinant E.coli gldA, His-tagged

Cat. No. gldA-110E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant E. coli gldA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	E.coli
Source	E.coli
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.
Form	Liquid. In Phosphate buffered saline (pH7.4), 10% glycerol
Bio-activity	Specific activity: >14 Units/ml One unit will oxidize 1.0 umole of glycerol to dihydroxyacetone per minute at pH 8.0 at 25C
Molecular Mass	41.1 kDa (390aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMDRIIQS PGKYIQGADV INRLGEYLKP LAERWLVVGD KFVLGFAQST VEKSFKDAGL VVEIAPFGGE CSQNEIDRLR

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	GIAETAQCGA ILGIGGGKTL DTAKALAHFM GVPVAIAPTI ASTDAPCSAL SVIYTDEGEF DRYLLLPNNP NMVIVDTKIV AGAPARLLAA GIGDALATWF EARACSRSGA TTMAGGKCTQ AALALAELCY NTLLEEGEKA MLAAEQHVVT PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGEKVAF GTLTQLVLEN APVEEIETVA ALSHAVGLPI TLAQLDIKED VPAKMRIVAE AACAEGETIH NMPGGATPDQ VYAALLVADQ YGQRFLQEWE
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)

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