Recombinant e.coli gor protein

Catalog Number: ATGP1423

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-450aa

UniProt No.
P06715

NCBI Accession No.
NP_417957

Alternative Names
Glutathione oxidoreductase, ECK3485, gorA, JW3467

PRODUCT SPECIFICATION

Molecular Weight
51.2 kDa (473aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.1M NaCl,1mM DTT

Purity
> 90% by SDS-PAGE

Biological Activity
Specific activity is > 60unit/mg. The unit definition for glutathione reductase activity may be expressed in terms of the oxidation of NADPH or the reduction of GSSG since their molar ratio is 1:1. One unit of glutathione reductase oxidizes 1 umol of NADPH per minute at 37C, pH 7.5.

Tag
His-Tag

Application
Enzyme Activity,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
gor, also known as Glutathione reductase, belongs to the class-I pyridine nucleotide disulfide oxidoreductase family. The main function of the protein is to maintain high levels of reduced glutathione in the cytosol. With the

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concomitant oxidation of NADPH, Glutathione reductase transforms oxidized glutathione to the reduced form. The active site of the protein is a redox-active disulfide bond. Recombinant E. coli gor protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

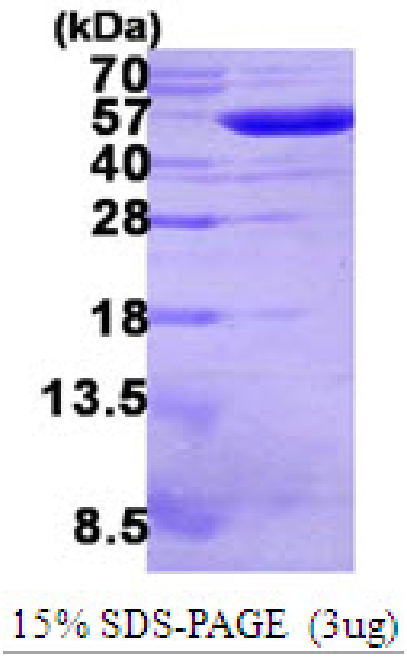
MGSSHHHHHH SSGLVPRGSH MGSMTKHYDY IAIGGGSGGI ASINRAAMYG QKCALIEAKE LGGTCVNVGC VPKKVMWHAA QIREAIHMYG PDYGFDTTIN KFNWETLIAS RTAYIDRIHT SYENVLGKNN VDVIKGFARF VDAKTLEVNG ETITADHILI ATGGRPSHPD IPGVEYGIDS DGFFALPALP ERVAVVGAGY IAVELAGVIN GLGAKTHLFV RKHAPLRSFD PMISETLVEV MNAEGPQLHT NAIPKAVVKN TDGSLTLELE DGRSETVDCL IWAIGREPAN DNINLEAAGV KTNEKGYIVV DKYQNTNIEG IYAVGDNTGA VELTPVAVAA GRRLSERLFN NKPDEHLDYS NIPTVVFSHP PIGTVGLTEP QAREQYGDDQ VKVYKSSFTA MYTAVTTHRQ PCRMKLVCVG SEEKIVGIHG IGFGMDEMLQ GFAVALKMGA TKKDFDNTVA IHPTAAEEFV TMR

General References

Staal G.E. et al. (1969) Biochim. Biophys. Acta 185: 63-69.
Stoll V.S.. et al. (1997) Biochemistry 36: 6437-6447.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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