# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 1-321aa

**UniProt No.** P0A6V8

NCBI Accession No. NP\_416889

Alternative Names Glucokinase, ECK2384, JW2385

# **PRODUCT SPECIFICATION**

**Molecular Weight** 37.1 kDa (344aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

#### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol

#### Purity

> 95% by SDS-PAGE

#### **Biological Activity**

Specific activity is > 70unit/mg obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NADP. One unit will oxidize 1.0 umole of Glucose to D-glucose 6-phosphate per minute in the presence of Beta-NADP at pH 9.0 at 37C.

# Tag

His-Tag

**Application** SDS-PAGE, Enzyme Activity

#### **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

glk belongs to the bacterial glucokinase family. This protein is not highly important in E. coli as glucose is transported into the cell by the PTS system already as glucose 6-phosphate. Recombinant E. coli glk protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

#### Amino acid Sequence

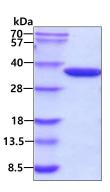
<MGSSHHHHHH SSGLVPRGSH MGS>MTKYALV GDVGGTNARL ALCDIASGEI SQAKTYSGLD YPSLEAVIRV YLEEHKVEVK DGCIAIACPI TGDWVAMTNH TWAFSIAEMK KNLGFSHLEI INDFTAVSMA IPMLKKEHLI QFGGAEPVEG KPIAVYGAGT GLGVAHLVHV DKRWVSLPGE GGHVDFAPNS EEEAIILEIL RAEIGHVSAE RVLSGPGLVN LYRAIVKADN RLPENLKPKD ITERALADSC TDCRRALSLF CVIMGRFGGN LALNLGTFGG VFIAGGIVPR FLEFFKASGF RAAFEDKGRF KEYVHDIPVY LIVHDNPGLL GSGAHLRQTL GHIL

#### **General References**

Kawai S, Mukai T, et al. (2005) J. Biosci. Bioeng. 99 (4): 320-30.

## DATA

#### **SDS-PAGE**



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