
Product Data Sheet

Product Name: GLK E.Coli, Active

Cat. No.: GP26190

Batch No.: 1

Product Data

Purity >98% Source Escherichia Coli.

Physical Appearance solid Shipping Condition withIcePacks

Synonyms Glucokinase, ECK2384, JW2385.

Amino Acid Sequence
 MGSSHHHHHH SGLVPRGSH MGSMTKYALV GDVGGTNARL ALCDIASGEI
 SQAKTYSGLD YPSLEAVIRV YLEEHKVEVK DGCIAIACPI TGDWVAMTNH
 TWAFSIAEMK KNLGFSHLEI INDFTAVSMA IPMLKKEHLI QFGGAEPVEG
 KPIAVYGAGT GLGVAHLVHV DKRWVSLPGE GGHVDFAPNS EEEAIIILEIL
 RAEIGHVSAE RVLSPGGLVN LYRAIVKADN RLPENLKPKD ITERALADSC
 TDCRRALSLF CVIMGRFGGN LALNLGTFGG VFIAGGIVPR FLEFFKASGF
 RAAFEDKGRF KEYVHDIPVY LIVHDNPGLL GSGAHLRQTL GHIL

Formulation GLK protein solution (1mg/ml) contains 0.15M NaCl, 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.

Introduction

Glucokinase or GLK, is a protein, part of the bacterial glucokinase superfamily. In the bacteria E. coli, glucose can be transported to the inner cell through a system called PTS as glucose 6-phosphate, therefore, GLK is less crucial to the bacteria.

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.

Stability

Store at 46yC if entire vial will be used within 2-4 weeks. Store, frozen at -206yC for longer periods of time. For long term storage it is recommended to add a carrier protein

Caution: Product has not been fully validated for medical applications. For research use only.

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(0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GLK E.Coli Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 344 amino acids (1-321) and having a molecular mass of 37.1kDa. GLK is fused to a 23 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

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