

# Recombinant human GALK1 protein

Catalog Number: ATGP0641

## PRODUCT INFORMATION

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**Expression system**

E.coli

**Domain**

1-392aa

**UniProt No.**

P51570

**NCBI Accession No.**

NP\_000145.1

**Alternative Names**

Galactokinase, GALK, GK1, Galactokinase

## PRODUCT SPECIFICATION

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**Molecular Weight**

44.4 (412aa) confirmed by MALDI-TOF

**Concentration**

0.5mg/ml (determined by Bradford assay)

**Formulation**

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

**Purity**

&gt; 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

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**Description**

GALK1, also often designated galactokinase, is important in the first step of the galactose metabolism pathway. (ATP + D-galactose = ADP + alpha-D-galactose 1-phosphate) Defects in GALK1 are the cause of galactosemia II. It is an autosomal recessive deficiency characterized by congenital cataracts during infancy and presenile cataracts in the adult population. The cataracts are secondary to accumulation of galactitol in the lenses. Recombinant human GALK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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## Amino acid Sequence

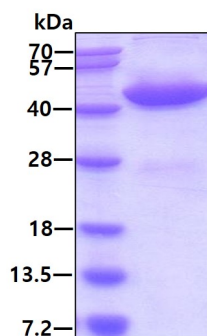
<MGSSHHHHHH SSGLVPRGSH> MAALRQPQVA ELLAEARRAF REEFGAEPPEL AVSAPGRVNL IGEHTDYNQG  
LVLPMALELM TVLVGSPRKD GLVSLTTSE GADEPQRLQF PLPTAQRSLE PGTPRWANYV KGVIQYYPAA PLPGFSAVVV  
SSVPLGGGLS SSASLEVATY TFLQQLCPDS GTIAARAQVC QQAHSFAGM PCGIMDQFIS LMGQKGHALL IDCRSLETSL  
VPLSDPKLAV LITNSNVRHS LASSEYPVRR RQCEEVARAL GKESLREVQL EELEAARDLV SKEGFRRARH VVGEIRRTAQ  
AAAALRRGDY RAFGRMLVES HRSLRDDYEV SCPELDQLVE AALAVPGVYG SRMTGGGFGG CTVTLLEASA APHAMRHIQE  
HYGGTATFYI SQAADGAKVL CL

## General References

Ai Y., et al. (1995) Biochem Biophys Res Commun. 212(2):687-91.  
Hunter M., et al. (2001) Hum Mutat. 17(1):77-8.

## DATA

### SDS-PAGE



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