Human GALK1 / Galactokinase / Galactose kinase Protein (His & GST Tag)

Catalog Number: **11383-H20B**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

GALK; GK1; HEL-S-19; AA409894; GALK; Gk; Glk; Glk1

Protein Construction:

A DNA sequence encoding the human GALK1 (P51570) (Met 1-Leu 392) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human GALK1/GST chimera consists of 629 amino acids and has a calculated molecular mass of 70 kDa. It migrates as an approximately 60 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 2mM GSH, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

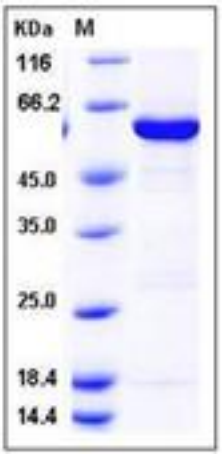
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Galactokinase, also known as Galactose kinase, GALK and GALK1, is a protein which belongs to the GHMP kinase family and GalK subfamily. Galactokinase / GALK1 is a major enzyme for galactose metabolism. Galactokinase (GALK) deficiency is an autosomal recessive disorder characterized by elevation of blood galactose concentration and diminished galactose-1-phosphate, leading to the production of galactitol. Defects in GALK1 are the cause of galactosemia II (GALCT2) which II 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.

References

1.Hunter,M. et al., 2001, Hum Mutat. 17 (1):77-8.
2.Park,H.D. et al., 2007, Mol Genet Metab. 91 (3):234-8.
3.Park,H.D. et al., 2009, BMC Med Genet. 10 :29.