

GALK1 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	galactokinase 1;HEL-S-19;GALK;GK1
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. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P51570
Molecular Weight:	70 kDa (predicted); 60 kDa (reducing conditions)

QC Testing

Biological Activity:	Kinase activity untested
Purity:	>85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM Tris, 500 mM NaCl, 2 mM GSH, pH 8.0.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

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 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.

Reference

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

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