Human Hexokinase-3 / HK3 Protein (His & GST Tag)

Catalog Number: 11016-H20B

General Information

Gene Name Synonym:

HKIII; HXK3

Protein Construction:

A DNA sequence encoding the human HK3 (P52790) (Met 1-Val 923) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % 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 HK3/GST chimera consists of 1160 amino acids and has a calculated molecular mass of 127 kDa. It migrates as an approximately 115 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 50mM Tris, 100mM Nacl, pH7.4, 25% glycerol, 0.5mM PMSF, 0.1mM EDTA, 0.5mM GSH

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:

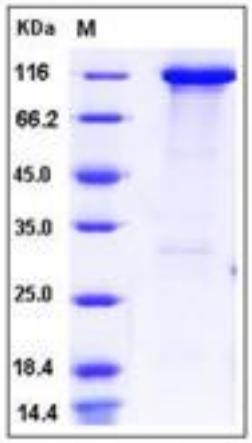
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Hexokinase-3, also known as Hexokinase type III, HKIII and HK3, is a protein which belongs to thehexokinase family. Hexokinase-3 / HK3 is anenzymewhich in humans is encoded by theHK2gene. Hexokinases phosphorylate glucoseto produceglucose 6-phosphate, committing glucose to theglycolytic pathway. In mammalian tissues hexokinase exists as four isoenzymes encoded by distinct genes. These proteins are homologous and are organized in two homologous domains, with the exception of hexokinase type IV which has only one. This organization is believed to be the result of a duplication and tandem fusion event involving the gene encoding for the ancestral hexokinase. The gene encodes hexokinase-3. Similar to hexokinases-1 and hexokinases-2, thisallostericenzyme is inhibited by its product glucose 6-phosphate.

References

1.Palma F. et al., 1996, Mol Cell Biochem. 155: 23-9. 2.Furuta H. et al.,1996, Genomics. 36 (1): 206-9. 3.Colosimo A. et al.,1996, Cytogenet Cell Genet. 74 (3): 187-8.