Human PHKG1 Protein (GST Tag)

Catalog Number: **11034-H09B**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

PHKG

Protein Construction:

A DNA sequence encoding the human PHKG1 (NP_006204.1) (Met 1-Tyr 387) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 87 % as determined by SDS-PAGE

Bio Activity:

No Kinase Activity

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 PHKG1/GST chimera consists of 612 amino acids and predicts a molecular mass of 71.3 kDa. It migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM GSH, 0.5mM PMSF, 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:

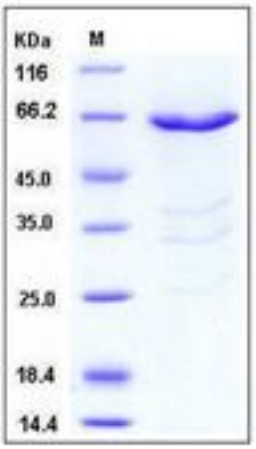
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Phosphorylase b kinase gamma catalytic chain, skeletal muscle isoform, also known as Phosphorylase kinase subunit gamma-1 and PHKG1, is a member of the protein kinase superfamily and CAMK Ser/Thr protein kinase family. PHKG1 is the catalytic member of a 16 subunit protein kinase complex which contains equimolar ratios of 4 subunit types. The complex is a crucial glycogenolytic regulatory enzyme. Muscle glycogenosis caused by phosphorylase kinase (Phk) deficiency may lead to exercise intolerance, weakness and musculatur atrophy. The gene encoding the muscle isoform of the Phk gamma subunit (gamma M) is one of the candidate genes in which mutations responsible for this condition should be sought. Muscle-specific deficiency of Phk causes glycogen storage disease, clinically manifesting in exercise intolerance with early fatiguability, pain, cramps and occasionally myoglobinuria.

References

1.Wehner, M. et al., 1995, Hum Genet. 96 (5): 616-8. 2.Burwinkel, B. et al., 2003, Eur J Hum Genet. 11 (7): 516-26. 3.Winchester, JS. et al., 2007, Mol Genet Metab. 92 (3): 234-42.