Human IHPK1 Protein (His & GST Tag)

Catalog Number: **13927-H20B**

General Information

Gene Name Synonym:

IHPK1; PiUS

Protein Construction:

A DNA sequence encoding the human IHPK1 (Q92551-1) (Met1-Gln441) 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 IHPK1 /GST chimera consists of 678 amino acids and has a calculated molecular mass of 78 kDa. The recombinant protein migrates approximately 88 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% gly

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:

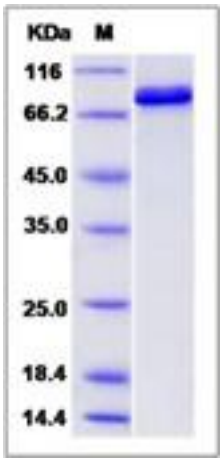
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IHPK1 is a inositol hexaphosphate kinase (IHPK) protein which belongs to the inositol phosphokinase (IPK) family. IHPK proteins are likely responsible for the conversion of inositol hexakisphosphate (InsP6) to diphosphoinositol pentakisphosphate (InsP7/PP-InsP5). IHPK1 may also convert 1,3,4,5,6-pentakisphosphate (InsP5) to PP-InsP4 and affect the growth suppressive and apoptotic activities of interferon-beta in some ovarian cancers. During cell death, IHPK1 activity is enhanced, and intracellular InsP7 level is augmented. The distribution of IHPK1 or another predisposing gene affected by position effect of translocation may explain the T2DM phenotype at least in this family.

References

1.Strausberg RL, *et al.* (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903. 2.Saiardi A, *et al.* (2001) Identification and characterization of a novel inositol hexakisphosphate kinase. J Biol Chem. 276(42):39179-85. 3.Kamimura J, *et al.* (2004) The IHPK1 gene is disrupted at the 3p21.31 breakpoint of t(3;9) in a family with type 2 diabetes mellitus. J Hum Genet. 49(7):360-5.