Human TLK2 / PKU-ALPHA Protein (aa 397-772, His & GST Tag)

Catalog Number: **11551-H20B**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

HsHPK; PKU-ALPHA; 4933403M19Rik; PKU-alpha; PKUalpha; Tlk

Protein Construction:

A DNA sequence encoding the amino acids (Leu 397-Asn 772) of human TLK2 (Q86UE8-1) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % 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 TLK2 (aa 397-772)/GST chimera consists of 613 amino acids and has a calculated molecular mass of 71.3 kDa. It migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 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:

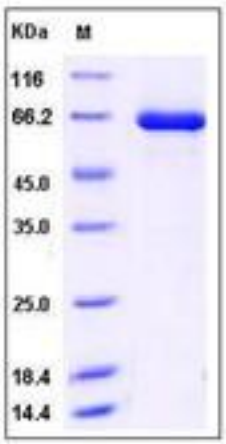
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Serine / threonine-protein kinase tousled-like 2, also known as PKU-alpha, Tousled-like kinase 2 and TLK2, is a nucleus protein which belongs to the protein kinase superfamily and Ser/Thr protein kinase family. The tousled-like kinases are an evolutionarily conserved family of proteins implicated in DNA repair, DNA replication and mitosis in metazoans and plants. Their absence from the yeasts and other eukaryotic 'microbes' suggests a specific role for them in the development of multicellular organisms. Tousled-like kinase 2 / TLK2 is widely expressed. It is present in fetal placenta, liver, kidney, pancreas, heart and skeletal muscle. It is also found in adult cell lines. Tousled-like kinase 2 / TLK2 contains one protein kinase domain. Tousled-like kinase 2 / TLK2 is rapidly and transiently inhibited by phosphorylation following the generation of DNA double-stranded breaks during S-phase. This is cell cycle checkpoint and ATM-pathway dependent and appears to regulate processes involved in chromatin assembly.

References

1.Sillje HHW. et al., 2001,Curr Biol. 11: 1068-73.
2.Groth A. et al., 2003, EMBO J. 22: 1676-87.
3.Beausoleil SA. et al., 2004, Proc Natl Acad Sci. 101: 12130-5.