Human CSNK1G1 / CKI-gamma 1 Protein (His & GST Tag)

Catalog Number: **11569-H20B**

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General Information

Gene Name Synonym:

CK1gamma1; 9130020E21Rik

Protein Construction:

A DNA sequence encoding full length of human CSNK1G1 (NP_071331.2) (Met 1-Lys 422) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 4 nmol/min/mg using casein as substrate.

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 CSNK1G1/GST chimera consists of 659 amino acids and has a calculated molecular mass of 76.3 kDa. It migrates as an approximately 66 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 10% gly, pH 7.4

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:

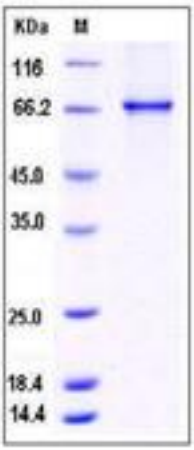
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Casein kinase I isoform gamma-1, also known as CSNK1G1, is a member of the protein kinase superfamily, CK1 Ser/Thr protein kinase family and casein kinase I subfamily. The casein kinase I family of protein kinases are serine / threonine-selective enzymes that function as regulators of signal transduction pathways in most eukaryotic cell types. Casein has been used as a substrate since the earliest days of research on protein phosphorylation. Casein kinase activity associated with the endoplasmic reticulum of mammary glands was first characterized in 1974 and its activity was shown to not depend on cyclic AMP. The CKI family of monomeric serine–threonine protein kinases is found in eukaryotic organisms from yeast to human. Mammals have seven family members: alpha, beta 1, gamma 1, gamma 2, gamma 3, delta, and epsilon. The family members have the highest homology in their kinase domains (53%–98% identical) and differ from most other protein kinases by the presence of the sequence S-I-N instead of A-P-E in kinase domain VIII. The CKI family members appear to have similar substrate specificity and substrate selection is thought to be regulated via subcellular localization and docking sites in specific substrates.

References

1.E. Bingham. et al.,1974, Journal of Biological Chemistry. 249: 3647-51.
2.Wojciech S. et al., 2004, Journal of Biological Chemistry.279: 13011-7.
3.L. Lum. et al., 2004, Science Volume 304, pages 1755-9.