

Human RIOK1 / RIO kinase 1 Protein (His & GST Tag)

Catalog Number: 14477-H20B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AD034; bA288G3.1; RRP10; 3110046C13Rik; 5430416A05Rik; Ad034

Protein Construction:

A DNA sequence encoding the human RIOK1 (Q9BRS2) (Met1-Lys568) was expressed 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 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human RIOK1/GST chimera consists of 805 amino acids and has a calculated molecular mass of 93.4 kDa. The recombinant protein migrates as an approximately 94 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, 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:

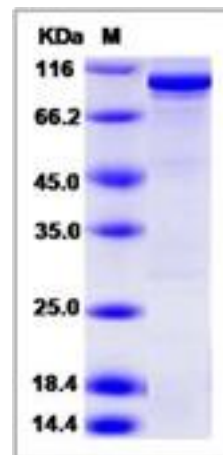
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

RIOK1, also known as RIO kinase 1, is a member of the RIO family of atypical serine protein kinases first characterized in yeast. RIOK1 and RIOK2 proteins are present in organisms from Archaea to humans. RIOK1 functions as a new interactor of protein arginine methyltransferase 5 (PRMT5), competes with pICln for binding and modulates PRMT5 complex composition and substrate specificity. RioK1 and pICln bind to PRMT5 in a mutually exclusive fashion. This results in a PRMT5-WD45/MEP50 core structure that either associates with pICln or RioK1. RIOK1 in distinct complexes. RIOK1 functions in analogy to pICln as an adapter protein by recruiting the RNA-binding protein nucleolin to the PRMT5 complex for its symmetrical methylation.

References

1. Widmann B. et al., 2012, Mol Biol Cell. 23 (1): 22-35.
2. LaRonde-LeBlanc N. et al., 2005, Biochim Biophys Acta. 1754 (1-2): 14-24.
3. Guderian G. et al., 2011, J Biol Chem. 286 (3): 1976-86.

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