

RIOK1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P76578
Synonyms:	Serine/threonine-protein kinase RIO1; RIO kinase 1; RIO1
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9BRS2 (M1-K568)
Gene ID:	83732
Molecular Weight:	Approximately 94 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 10% glycerol, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

The RIOK1 Protein plays a crucial role in the final stages of cytoplasmic maturation of the 40S ribosomal subunit, actively participating in the processing of 18S-E pre-rRNA to mature 18S rRNA. Essential for the recycling of NOB1 and PNO1 from the late 40S precursor, RIOK1's association with the very late 40S subunit intermediate suggests involvement in a translation-like checkpoint cycle preceding its binding to the 60S ribosomal subunit. Despite its proposed protein kinase domain acting predominantly as an ATPase, the catalytic activity dynamically regulates its association with the 40S subunit. Beyond its role in ribosomal biogenesis, RIOK1 acts as an adapter protein, facilitating the recruitment of NCL/nucleolin to the PRMT5 complex for symmetrical methylation, demonstrating its multifaceted contributions to cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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