

## CLK2 Protein, Human (GST)

Cat. No.:	HY-P701664
Synonyms:	CLK2; Dual specificity protein kinase CLK2; CDC-like kinase 2
Species:	Human
Source:	E. coli
Accession:	P49760 (R130-D496)
Gene ID:	1196
Molecular Weight:	

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
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	<p>CLK2 protein, a dual specificity kinase, exhibits activity on both serine/threonine and tyrosine-containing substrates. Notably, it phosphorylates serine- and arginine-rich (SR) proteins within the spliceosomal complex, playing a role in the intricate network of regulatory mechanisms governing RNA splicing. This kinase's influence can lead to the redistribution of SR proteins from speckles to a diffuse nucleoplasmic distribution. Beyond its role in RNA processing, CLK2 serves as a suppressor of hepatic gluconeogenesis and glucose output by repressing PPARGC1A transcriptional activity on gluconeogenic genes through phosphorylation. Additionally, it phosphorylates PPP2R5B, promoting the assembly of the PP2A phosphatase with the PPP2R5B-AKT1 complex, ultimately leading to the dephosphorylation of AKT1. CLK2 further exhibits a diverse substrate specificity by phosphorylating PTPN1, SRSF1, and SRSF3. Notably, it regulates the alternative splicing of tissue factor (F3) pre-mRNA in endothelial cells and phosphorylates PAGE4, attenuating its ability to potentiate the transcriptional activator activity of JUN.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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