

## HIPK3 Protein, Human (Sf9, GST)

<b>Cat. No.:</b>	HY-P701698
<b>Synonyms:</b>	HIPK3; Homeodomain-interacting protein kinase 3; Androgen receptor-interacting nuclear protein kinase; ANPK; Fas-interacting serine/threonine-protein kinase; FIST; Homolog of protein kinase YAK1
<b>Species:</b>	Human
<b>Source:</b>	Sf9 insect cells
<b>Accession:</b>	Q9H422 (P161-N562)
<b>Gene ID:</b>	10114
<b>Molecular Weight:</b>	

### PROPERTIES

<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	Please use rapid thawing with running water to thaw the protein.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	<p>HIPK3, a serine/threonine-protein kinase, assumes a multifaceted role in cellular processes, encompassing transcriptional regulation, apoptosis, and the modulation of steroidogenic gene expression. Notably, HIPK3 exerts its regulatory influence by phosphorylating key transcription factors such as JUN and RUNX2, thereby participating in the intricate orchestration of gene expression. A distinctive facet of HIPK3's functionality lies in its presumed negative regulation of apoptosis, demonstrated by its promotion of FADD phosphorylation, suggesting a role in cellular survival pathways. Furthermore, HIPK3 emerges as a pivotal contributor to steroidogenic gene expression, where its phosphorylation of NR5A1 activates SF1, leading to heightened steroidogenic gene expression in response to cAMP signaling pathway stimulation. Acting as a transcriptional corepressor for NK homeodomain transcription factors, HIPK3 adds another layer to its regulatory repertoire. In osteoblasts, HIPK3 supports transcription activation by phosphorylating RUNX2, thereby synergizing with SPEN/MINT to enhance FGFR2-mediated activation of the osteocalcin FGF-responsive element (OCFRE), implicating HIPK3 in the modulation of osteoblast-specific gene expression.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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