

HIPK2 Protein, Human (Sf9, GST)

Cat. No.:	HY-P701696
Synonyms:	HIPK2; Homeodomain-interacting protein kinase 2; hHIPk2
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9H2X6 (A2-I1198)
Gene ID:	28996
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>HIPK2, a serine/threonine-protein kinase, emerges as a versatile regulator, participating in transcriptional control, p53/TP53-mediated cellular apoptosis, and cell cycle modulation. Functioning as a corepressor for various transcription factors, including SMAD1, POU4F1/Brn3a, and potentially NK homeodomain transcription factors, HIPK2 exerts its influence through the phosphorylation of a spectrum of substrates, including PDX1, ATF1, PML, p53/TP53, CREB1, CTBP1, CBX4, RUNX1, EP300, CTNNB1, HMGA1, ZBTB4, and DAZAP2. HIPK2 acts as a negative regulator through the phosphorylation-induced proteasomal degradation of CTNNB1 and the antiapoptotic factor CTBP1. Additionally, it serves as an intermediate kinase in the Wnt/beta-catenin signaling pathway, promoting the proteasomal degradation of MYB. HIPK2's intricate involvement in cellular responses includes transcriptional co-suppression of HIF1A in response to hypoxia and the activation of TP73. Furthermore, it plays a crucial role in DNA damage responses, stabilizing PML, triggering ZBTB4 protein degradation, and preventing DAZAP2-dependent ubiquitination of HIPK2. Moreover, HIPK2 contributes to angiogenesis, erythroid differentiation, and the regulation of eye development during late embryogenesis.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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