

Datasheet for ABIN7565169
HIPK2 Protein (AA 1-1196) (His tag)



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Overview

Quantity:	1 mg
Target:	HIPK2
Protein Characteristics:	AA 1-1196
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HIPK2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Hipk2 Protein expressed in mammalien cells.
Sequence:	<p>MAPVYEGMAS HVQVFSPHTL QSSAFCSVKK LKVEPSSNWD MTGYGSHSKV YSQSKNIPPS</p> <p>QPASTTVSTS LPIPNPSLPY EQTIIFPGST GHIVVTSASS TSVTGQVLGG PHNLMRRSTV</p> <p>SLLDTYQKCG LKRKSEEIEN TSSVQIIEH PPMIQNNASG ATVATATTST ATSKNSGSNS</p> <p>EGDYQLVQHE VLCSMTNTYE VLEFLGRGTF GQVVKCWKRG TNEIVAIIKIL KNHPSYARQG</p> <p>QIEVSILARL STESADDYNF VRAYECFQHK NHTCLVFEML EQNLYDFLKQ NKFSPLPLKY</p> <p>IRPVLQQVAT ALMKLKSGL IHADLKPENI MLVDPSRQPY RVKVIDFGSA SHVSKAVCST</p> <p>YLQSRYYRAP EIILGLPFCE AIDMWSLGCV IAEFLGWPL YPGASEYDQI RYISQTQGLP</p> <p>AEYLLSAGTK TTRFFNRDTD SPYPLWRLKT PDDHEAETGI KSKEARKYIF NCLDDMAQVN</p> <p>MTTDLEGSDM LVEKADRREF IDLLKKMLTI DADKRVTPIE TLNHPFVTMT HLLDFPHSAH</p> <p>VKSCFQNMEI CKRRVNMYDT VNQSKTPFIT HVAPSTSTNL TMTFNNQLTT VHNQAPTSS</p> <p>ATLSLANPEV SILNYQSALY QPSAASMAAV APRSMPLQTG TAQICARPDP FQQALIVCPP</p>

GFQGLQASPS KHAGYSVRME NAVPIVTQAP GAQPLQIQPG LLAQQAWPGG AQQILLPPAW
QQLTGVATHT SVQHAAVIPE TMAGTQQLAD WRNTHAHGSH YNPIMQQPAL LTGHVTLPA
QPLNVGVAHV MRQQPTSTTS SRKSKQHQS VRNVSTCEVT SSQAISPPQR SKRVKENTPP
RCAMVHSSPA CSTSVTCGWG DVASSTTRER QRQTIVIPDT PSPTVSVITI SSDTDEEEEQ
KHAPTSTVSK QRKNVISCVT VHDSPYSDSS SNTSPYSVQQ RTGHNGTNTL DTKGGLENHC
TGNPRTIIVP PLKTQASEVL VECDSLGPAL SASHHSSSFK SKSSSTVTST SGHSSGSSSG
AIAYRQQRPG PHFQQQPLN LSQAQQHMAA DRTGSHRRQQ AYITPTMAQA PYTFPHNSPS
HGTVPHLAA AAHLPTQPHL YTYTAPTALG STGTVAHLVA SQGSARHTVQ HTAYPASIVH
QVPVSMGPRV LPSPTIHPSQ YPAQFAHQTY ISASPASTVY TGYPSPAKV NQYPYI **Sequence**
without tag. The proposed Purification-Tag is based on experiences with the expression
system, a different complexity of the protein could make another tag necessary. In case you
have a special request, please contact us.

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.• Protein expressed in mammalian cells and purified in one-step affinity chromatography• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.</p>
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Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	HIPK2
Alternative Name:	Hipk2 (HIPK2 Products)
Background:	Homeodomain-interacting protein kinase 2 (EC 2.7.11.1) (Nuclear body-associated kinase 1)

(Sialophorin tail-associated nuclear serine/threonine-protein kinase),FUNCTION:

Serine/threonine-protein kinase involved in transcription regulation, p53/TP53-mediated cellular apoptosis and regulation of the cell cycle. Acts as a corepressor of several transcription factors, including SMAD1 and POU4F1/Brn3a and probably NK homeodomain transcription factors. Phosphorylates PDX1, ATF1, PML, p53/TP53, CREB1, CTBP1, CBX4, RUNX1, EP300, CTNNB1, HMGA1, ZBTB4 and DAZAP2. Inhibits cell growth and promotes apoptosis through the activation of p53/TP53 both at the transcription level and at the protein level (by phosphorylation and indirect acetylation). The phosphorylation of p53/TP53 may be mediated by a p53/TP53-HIPK2-AXIN1 complex. Involved in the response to hypoxia by acting as a transcriptional co-suppressor of HIF1A. Mediates transcriptional activation of TP73. In response to TGFB, cooperates with DAXX to activate JNK. Negative regulator through phosphorylation and subsequent proteasomal degradation of CTNNB1 and the antiapoptotic factor CTBP1. In the Wnt/beta-catenin signaling pathway acts as an intermediate kinase between MAP3K7/TAK1 and NLK to promote the proteasomal degradation of MYB. Phosphorylates CBX4 upon DNA damage and promotes its E3 SUMO-protein ligase activity. Activates CREB1 and ATF1 transcription factors by phosphorylation in response to genotoxic stress. In response to DNA damage, stabilizes PML by phosphorylation. PML, HIPK2 and FBXO3 may act synergically to activate p53/TP53-dependent transactivation. Promotes angiogenesis, and is involved in erythroid differentiation, especially during fetal liver erythropoiesis. Phosphorylation of RUNX1 and EP300 stimulates EP300 transcription regulation activity. Triggers ZBTB4 protein degradation in response to DNA damage. In response to DNA damage, phosphorylates DAZAP2 which localizes DAZAP2 to the nucleus, reduces interaction of DAZAP2 with HIPK2 and prevents DAZAP2-dependent ubiquitination of HIPK2 by E3 ubiquitin-protein ligase SIAH1 and subsequent proteasomal degradation (By similarity). Modulates HMGA1 DNA-binding affinity. In response to high glucose, triggers phosphorylation-mediated subnuclear localization shifting of PDX1. Involved in the regulation of eye size, lens formation and retinal lamination during late embryogenesis. {ECO:0000250|UniProtKB:Q9H2X6, ECO:0000269|PubMed:11593421, ECO:0000269|PubMed:11780126, ECO:0000269|PubMed:14567915, ECO:0000269|PubMed:15082531, ECO:0000269|PubMed:15492043, ECO:0000269|PubMed:16917507, ECO:0000269|PubMed:20231426, ECO:0000269|PubMed:20307497, ECO:0000269|PubMed:20579985, ECO:0000269|PubMed:20637728}.

Molecular Weight: 130.5 kDa

UniProt: [Q9QZR5](#)

Pathways: [Cell Division Cycle](#)

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months