

Datasheet for ABIN3137413
HIPK2 Protein (AA 1-1196) (His tag)[Go to Product page](#)

1 Image

Overview

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

Product Details

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|-----------|---|
| Sequence: | MAPVYEGMAS HVQVFSPHTL QSSAFCSVKK LKVEPSSNWD MTGYGSHSKV YSQSKNIPPS QPASTTVSTS LPIPNSLPY EQTIIFPGST GHIVVTSASS TSVTGQVLGG PHNLMRRSTV SLLDYQKCG LKRKSEEIEN TSSVQIIEH PPMIQNNASG ATVATATTST ATSKNSGSNS EGDYQLVQHE VLCSMTNTYE VLEFLGRGTF GQVVKCWKRG TNEIVAIKIL KNHPSYARQG QIEVSILARL STESADDYNF VRAYECFQHK NHTCLVFEML EQNLYDFLKQ NKFSPLPLKY IRPVLQQVAT ALMKLKSGL IHADLKPENI MLVDPSRQPY RVKVIDFGSA SHVSKAVCST YLQSRYYRAP EIILGLPFCE AIDMWSLGCV IAEFLGWPL YPGASEYDQI RYISQTQGLP AEYLLSAGTK TTRFFNRDTD SPYPLWRLKT PDDHEAETGI KSKEARKYIF NCLDDMAQVN MTTDLEGSDM LVEKADRREF IDLLKKMLTI DADKRVTPIE TLNHPFVTMT HLLDFPHSAH VKSCFQNMEI CKRRVNMYDT VNQSKTPFIT HVAPSTSTNL TMTFNNQLTT VHNQAPTTSS ATLSLANPEV SILNYQSALY QPSAASMAAV APRSMPLQTG TAQICARPDP FQQALIVCPP GFQGLQASPS KHAGYSVRME NAVPIVTQAP GAQPLQIQPG LLAQQAWPGG AQQILLPPAW |
|-----------|---|

QQLTGVATHT SVQHAAVIPE TMAGTQQLAD WRNTHAHGSH YNPIMQQPAL LTGHVTLPA
QPLNVGVAHV MRQPTSTTS 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 TGYPLSPAKV NQYPYI

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Hipk2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.

Product Details

2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

| | |
|------------------|--|
| Purity: | >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot. |
| Sterility: | 0.22 µm filtered |
| Endotoxin Level: | Protein is endotoxin free. |
| Grade: | Crystallography grade |

Target Details

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|-------------------|--|
| Target: | HIPK2 |
| Alternative Name: | Hipk2 (HIPK2 Products) |

Background: 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 and ZBTB4. 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. 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

Target Details

embryogenesis. {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: 131.5 kDa Including tag.

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.

Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value 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: Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process