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Product datasheet for MC229436

Hipk2 (NM_001294143) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hipk2 (NM_001294143) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hipk2
Synonyms:	1110014O20Rik; B230339E18Rik; Stank
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC229436 representing NM_001294143
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCCCGTGTACGAAGGTATGGCCTCACATGTGCAAGTTTTCTCCCCTCACACCCTTCAATCAAGTG
CCTTCTGTAGTGTGAAGAAACTAAAAGTAGAGCCAAGTTCCAACTGGGACATGACTGGGTACGGCTCCCA
CAGCAAAGTGTACAGCCAGAGCAAGAACATACCACCTTCTCAGCCAGCCTCCACAACCGTCAGCACCTCC
TTGCCAATCCCCAACCCAAGCCTACCTTACGAGCAGACCATCATCTTCCCAGGAAGTACTGGACACATAG
TTGTAACATCAGCAAGTAGCACTTCTGTCACCGGGCAAGTCCTCGGTGGACCACATAACCTAATGCGTCG
AAGCACTGTGAGCCTCCTTGACACCTACCAAAAATGTGGACTCAAGCGCAAGAGTGAGGAGATTGAGAAC
ACAAGCAGCGTGCAGATCATTGAAGAGCATCCACCCATGATTCAGAATAATGCCAGCGGGGCCACTGTAG
CCACTGCCACCACATCCACTGCCACCTCCAAAAACAGTGGCTCCAACAGTGAAGGGGACTATCAGCTGGT
GCAGCATGAAGTACTGTGCTCCATGACCAACACCTATGAGGTTTTAGAGTTCTTGGGGCGAGGGACATTT
GGGCAAGTGGTCAAGTGCTGGAAACGGGGCACCAATGAAATTGTGGCCATTAAGATCCTCAAGAACCACC
CCTCCTATGCCCGGCAAGGCCAGATTGAAGTGAGCATCTTGGCCCGGCTGAGCACGGAGAGCGCTGATGA
CTACAATTTTGTGCGGGCCTATGAGTGCTTCCAGCACAAGAACCACACGTGCTTAGTCTTTGAGATGTTG
GAGCAGAACCTTTATGACTTTCTGAAACAGAACAAGTTTAGTCCCTTGCCCCTCAAGTATATTCGCCCAG
TCCTCCAGCAGGTAGCCACAGCCCTGATGAAACTCAAAAGCCTGGGTCTTATCCATGCTGACCTCAAACC
AGAAAACATCATGCTGGTGGATCCATCCAGACAACCGTACCGAGTGAAGGTCATTGACTTTGGTTCAGCT
AGTCATGTGTCCAAAGCTGTCTGCTCTACGTACTTGCAATCCAGATACTACCGGGCCCCTGAGATCATCC
TTGGTTTGCCATTCTGTGAGGCAATTGACATGTGGTCCCTTGGTTGTGTCATTGCTGAACTGTTCCTGGG
CTGGCCATTATACCCAGGTGCTTCTGAGTATGATCAGATTCGGTATATTTCACAAACACAGGGTTTACCA
GCTGAATATTTATTAAGTGCAGGGACAAAGACAACTAGGTTTTTCAACCGTGACACAGACTCACCGTATC
CTTTGTGGAGGCTAAAGACACCAGATGACCATGAAGCAGAGACGGGAATTAAGTCAAAGGAAGCAAGAAA
GTACATTTTCAACTGTTTGGATGATATGGCCCAGGTGAACATGACAACAGATTTGGAAGGGAGTGACATG
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TTAGTAGAGAAGGCAGACCGACGGGAGTTCATTGACCTGTTAAAGAAGATGCTGACCATCGATGCTGATA
AGAGAGTCACTCCCATTGAAACTCTGAACCACCCCTTTGTCACCATGACACACCTGCTTGACTTCCCCCA
TAGTGCCCATGTCAAATCTTGTTTCCAAAACATGGAGATTTGCAAGCGCCGGGTGAATATGTATGACACA
GTGAACCAGAGCAAAACACCTTTCATCACTCACGTGGCCCCCAGCACATCCACCAACTTGACCATGACCT
TTAACAACCAGCTGACCACTGTCCACAACCAGCCCTCAGCGGCATCCATGGCCGCGGTGGCCCCGCGGAG
CATGCCCCTGCAGACGGGAACAGCCCAAATTTGTGCCCGACCTGATCCCTTCCAGCAAGCTCTCATCGTG
TGTCCCCCTGGCTTCCAAGGCCTGCAGGCCTCTCCCTCCAAGCACGCTGGCTACTCAGTGCGGATGGAAA
ATGCTGTCCCCATCGTCACCCAGGCGCCAGGAGCTCAGCCTCTTCAGATCCAACCAGGCCTGCTTGCTCA
GCAGGCCTGGCCAGGTGGGGCCCAACAGATCCTACTTCCTCCAGCATGGCAGCAGCTGACTGGCGTGGCC
ACCCACACATCTGTACAGCATGCAGCTGTGATTCCTGAGACCATGGCAGGCACTCAGCAACTGGCTGACT
GGAGGAACACGCATGCTCATGGAAGTCATTACAATCCCATCATGCAGCAGCCTGCACTCTTGACTGGTCA
TGTGACCCTTCCAGCTGCCCAGCCCTTAAATGTGGGTGTAGCCCATGTGATGAGGCAACAACCAACCAGC
ACCACCTCCTCCAGGAAGAGTAAGCAGCACCAGTCATCTGTGAGAAATGTCTCCACCTGTGAGGTGACCT
CTTCACAGGCTATCAGCTCCCCTCAGCGATCCAAGCGTGTCAAGGAGAACACTCCCCCACGGTGCGCCAT
GGTACACAGCAGCCCAGCTTGCAGCACCTCAGTCACCTGTGGGTGGGGCGACGTGGCCTCCAGCACCACC
CGGGAGCGACAGCGGCAGACGATTGTCATCCCCGACACCCCGAGCCCCACAGTCAGTGTCATCACCATCA
GCAGTGACACCGATGAAGAAGAGGAGCAGAAGCACGCCCCCACCAGCACAGTCTCCAAGCAAAGAAAAAA
TGTCATCAGCTGTGTCACCGTCCACGACTCTCCCTACTCTGACTCCTCCAGCAACACCAGCCCCTACTCG
GTGCAGCAGCGCACAGGGCACAACGGCACCAACACCTTGGACACCAAGGGGGGCCTAGAGAATCACTGCA
CTGGCAACCCCCGCACCATCATCGTACCCCCACTGAAGACCCAGGCCAGTGAAGTGTTGGTAGAATGTGA
CAGCCTAGGGCCAGCGATCAGTGCCAGTCACCATTCGTCCTCCTTCAAGTCCAAGTCCTCCAGCACCGTG
ACCTCCACCAGTGGACACTCTTCAGGGAGCTCTTCAGGAGCCATCGCCTACCGTCAGCAGCGGCCAGGCC
CCCACTTCCAGCAGCAGCAGCCCCTCAATCTCAGCCAGGCCCAGCAGCACATGGCTGCGGACCGCACCGG
GAGTCACCGTCGACAGCAGGCCTACATCACTCCGACCATGGCGCAAGCTCCGTACACCTTCCCGCACAAC
AGCCCCAGCCATGGCACTGTTCACCCCCACCTGGCTGCGGCTGCCCACCTCCCCACCCAGCCTCACCTCT
ACACCTATACAGCGCCCACAGCCCTAGGCTCCACCGGCACTGTAGCCCACCTGGTGGCATCCCAAGGCTC
AGCACGCCACACCGTGCAGCACACTGCCTATCCGGCCAGCATCGTCCACCAGGTCCCTGTGAGCATGGGG
CCCCGGGTCCTGCCCTCGCCCACCATCCACCCCAGTCAGTATCCAGCCCAGTTTGCCCACCAGACCTATA
TCAGCGCCTCGCCAGCCTCCACCGTCTACACTGGATACCCACTGAGTCCTGCCAAGGTCAACCAATACCC
TTACATATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001294143

Insert Size: 3510 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001294143.1, NP_001281072.1
RefSeq Size:	4178 bp
RefSeq ORF:	3510 bp
Locus ID:	15258
UniProt ID:	Q9QZR5
Cytogenetics:	6 B1

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Gene Summary: 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 embryogenesis. [UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (3) uses an alternate in-frame splice site in the central coding region compared to variant 2. The encoded isoform (3) is shorter than isoform 2. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.

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