

Product datasheet for **RC240036**

HIPK3 (NM_001278162) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HIPK3 (NM_001278162) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HIPK3
Synonyms:	DYRK6; FIST3; PKY; YAK1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC240036 representing NM_001278162 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCCTCACAAGTCTTGGTCTACCCACCATATGTTTATCAAACCTCAGTCAAGTGCCTTTTGTAGTGTGA
AGAACTCAAAGTAGAGCCAAGCAGTTGTGATTCAGGAAAGAACTATCCACGGACCTATGTGAATGG
TAGAACTTTGGAAATTCTCATCTCCCACTAAGGGTAGTGCTTTTCAGACAAAGATACCATTTAATAGA
CCTCGAGGACACAACCTTTTCATTGCAGACAAGTGCTGTTGTTTTGAAAAACTGCAGGTGCTACAAAGG
TCATAGCAGCTCAGGCACAGCAAGCTCAGTGCAGGCACCTCAGATTGGGGCGTGGCGAAACAGATTGCA
TTTCTAGAAAGGCCCCAGCGATGTGGATTGAAGCGCAAGAGTGAGGAGTTGGATAATCATAGCAGCGCA
ATGCAGATTGTCGATGAATTGTCCATACTTCTGCAATGTTGCAAACCAACATGGGAAATCCAGTGACAG
TTGTGACAGCTACCACAGGATCAAACAGAAATTGTACCACTGGAGAAGGTGACTATCAGTTAGTACAGCA
TGAAGTCTTATGCTCCATGAAAAATACTTACGAAGTCCTTGATTTTCTTGGTCGAGGCACGTTTGGCCAG
GTAGTTAAATGCTGAAAAAGAGGGACAAATGAAATTGTAGCAATCAAAATTTTGAAGAATCATCCTTCTT
ATGCCCGTCAAGGTCAAATAGAAGTGAGCATATTAGCAAGGCTCAGTACTGAAATGCTGATGAATATAA
CTTTGTACGAGCTTATGAATGCTTTCAGCACCGTAACCACTACTGTTTAGTCTTTGAGATGCTGGAACAA
AACTTGTATGACTTTCTGAAACAAAATAAATTTAGTCCCTGCCACTAAAAGTGATTTCGGCCATTCTTC
AACAAAGTGGCCACTGCACTGAAAAAATTGAAAAGTCTTGGTTAATTCATGCTGATCTCAAGCCAGAGAA
TATTATGTTGGTGGATCCTGTTCCGCGAGCCTTACAGGGTTAAAGTAATAGACTTTGGGTCCGCGCAGT
GTATCAAAGACTGTTTGTCAACATATCTACAATCTCGGTAACAGAGCTCCAGAGATTATTTGGGGT
TGCCATTTTGTGAAGCCATAGACATGTGGTCATTGGGATGTGTGATTGCAGAATTATTTCTGGATGGCC
GCTCTACCCAGGAGCCTTGGAGTATGATCAGATTCGATACATTTCTCAGACTCAAGGTTTCCAGGAGAA
CAGTTGTTAAATGTGGTACTAAATCCACAAGATTTTTTTGCAAAGAAACAGATATGTCTCATTCTGGTT
GGAGATTAAGACATTGGAAGAGCATGAGGCAGAGACAGGAATGAAGTCTAAAGAAGCCAGAAAATACAT
TTTCAACAGTCTGGATGATGTAGCGCATGTGAACACAGTATGGATTTGGAAGGAAGTGATCTTTGGCT
GAGAAAGCTGATAGAAGAGAATTTGTTAGTCTGTTGAAGAAAATGTTGCTGATTGATGCAGATTTAAGAA



[View online »](#)

TTACTCCAGCTGAGACCCTGAACCATCCTTTTGTAAATATGAAACATCTTCTAGATTTCCCTCATAGCAA
CCATGTAAGTCTGTTTTTCATATTATGGATATTTGTAAGTCCCACCTAAATTCATGTGACACAAATAAT
CACAACAAAATTCACTTTTAAGACCAGTTGCTTCAAGCAGTACTGCTACACTGACTGCAAATTTTACTA
AAATCGGAACATTAAGAAGTCAGGCATTGACCACATCTGCTCATTGATTGTGCACCATGGAATACCTCT
GCAGGCAGGAAGTCTCAGTTTGGTTGTGGTGATGCTTTTCAGCAGACATTGATTATCTGTCCCCAGCT
ATTCAGGTATTCCTGCAACACATGGTAAACCCACCAGTTATTCATAAGGGTAGATAATACAGTTCCAC
TTGTAACCTCAGGCCCCAGCTGTGCAGCCACTACAGATCCGACCAGGAGTCTTTCTCAGACGTGGTCTGG
TAGAACACAGCAGATGCTGGTGCCTGCCTGGCAACAGGTGACACCCTGGCTCCTGCTACTACTACACTA
ACTTCTGAGAGTGTGGCTGGTTCACACAGGCTTGAGACTGGGGGAAGATGATTTTCATGCAGCAATCATT
ATAACTCAGTGATGCCGAGCCTCTTCTGACCAATCAGATAACTTTATCTGCCCTCAGCCAGTTAGTGT
GGGGATTGCACATGTTGTCTGGCCTCAGCCTGCCACTACCAAGAAAAATAAACAGTGCCAGAACAGGAGT
AATTCATTACAGAATACCAATATCCACATTGAGCATTATTTCTCAAAGATAATTAATGGGAAAGATG
TCGAGGAAGTAAGTTGTATAGAAACACAGGACAATCAGAACTCAGAAGGAGAGGCAAGAAATGCTGTGA
AACATCTATCAGACAGGACTCTGATTATCAGTTTCAGACAAACAGCGGCAAACCATCATTATTGCCGAC
TCCCCGAGTCTGCAGTGAGTGTCATCACTATCAGCAGTGACACTGATGAGGAAGAGACTCCCAGAGAC
ATTCACTCAGAGAATGTAAGGTAGTCTAGATTGTGAAGCTTGCCAGAGCACTTTGAATATTGATCGGAT
GTGTTCAATTAAGTAGTCTGATAGTACTCTGAGTACCAGCTCCTCAGGGCAGTCCAGCCATCCCCCTGC
AAGAGACCGAATAGTATGTCAGATGAAGAGCAAGAAAGTAGTTGTGATACGGTGGATGGCTCTCCGACAT
CTGACTCTTCCGGGCATGACAGTCCATTTGCAGAGAGCACTTTTGTGGAGGACACTCATGAAAACACAGA
ATTGGTATCCTCTGCTGACACAGAAACCAAGCCAGCTGTCTGTTCTGTTGTGGTCCACCAGTGGAACTA
GAAAATGGCTTAAATGCCGATGAGCATATGGCAAACACAGATTCTATATGCCAGCCATTAATAAAAGGAC
GATCTGCCCTGGAAGATTAACCAGCCTTCTGCAGTGGTACTCGTCAGCAAAAATTGACATCAGCATT
CCAGCAGCAGCATTGAACTTCAGTCAGGTTGAGCACTTTGGATCTGGGCATCAAGAGTGGAAATGGAAAC
TTTGGGCACAGAAGACAGCAAGCTTATATTCCTACTAGTGTACCAGTAATCCATTCACTCTTTCTCATG
GAAGTCCAATCACACAGCAGTGATGCCACCTGGCTGGAAATCACACCTCGGAGGACAGCCTACTCT
ACTTCCATACCCATCATCAGCCACCCTCAGTAGTGTGCACCAGTGGCCACCTGTTAGCCTCTCCGTGT
ACCTCAAGACCTATGTTACAGCATCCAATTATAATATCTCCATCCCAGTGGCATAGTTCACCAAGTCC
CAGTGGGCTTAAATCCCCGTCTGTTACCATCCCCAACCATTTCATCAGACTCAGTACAAACCAATCTTCCC
ACCACATTCTTACATTGCAGCATACCTGCATATACTGGATTTCCACTGAGTCCAACAAAACCTCAGCCAG
TATCCATATATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

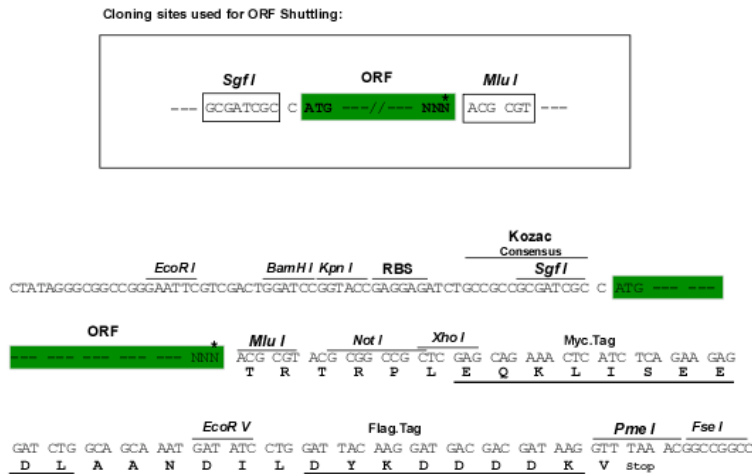
Protein Sequence: >RC240036 representing NM_001278162
 Red=Cloning site Green=Tags(s)

MASQVLVYPPYVYQTQSSAFCSVKLLKVEPSSCVFQERNYPRTYVNGRNFNSHPPTKGSFAFQTKIPFNR
 PRGHNFSLQTSAVVLKNTAGATK VIAAQAQAHVQAPQIGAWRNRLHFLEGPQRCGLKRRKSEELDNHSSA
 MQIVDELSTILPAMLQTNMGNPVTVVTTATGSKQNC TTGEGDYQLVQHEVLCSMKNTYEVLDLGRGTFGQ
 VVKCWKRGTNEI VAIKILKNHPSYARQGQIEVSI LARLSTENADEYNFVRAYECFQHRNHTCLVFEMLEQ
 NLYDFLKQNKFSPLPLKVI RPILQQVATALKLLKSLGLIHADLKPENIMLVDPVRQPYRVKVIDFGSASH
 VSKTVCSTYLQSRYYRAPEIILGLPFCEAIDMWSLGCVIAELFLGWPLYPGALEYDQIRYISQTQGLPGE
 QLLNVGTKSTRFFCKETDMSHSGWRLKLEEHEAETGMKSKEARKYIFNSLDDVAHVNTVMDLEGSDLLA
 EKADRRFVSLKMLLIDADLRITPAETLNHPFVNMKHLDFPHSNHVKSCFHIMDICKSHLNSCDTNN
 HNKTSLLRPVASSSTATLTANFTKIGTLRSQALTTSAHSVHHGIPLQAGTAQFGCGDAFQQTLIICPPA
 IQGIPATHGKPTSYSIRVDNTVPLVTQAPAVQPLQIRPGVLSQTWSGRTQQMLVPAWQQVTLAPATTTL
 TSESVAGSHRLGDWGMISCSNHYSVMPQPLL TNQITLSAPQPVSVGIAHVVPQPATTKKNKQCQNR
 NSLQNTNIPHSAFISPK IINGKDV EEVSCIETQDNQNSEGEARNCCETSIRQSDSSVSDKQRQTIIAD
 SPSPAVSVITISSDTDEEETSQRHSLRECKGSLDCEACQSTLNIDRMCSLSPDSTLSTSSSGQSSPSPC
 KRPNSMSDEEQESSCDTVDGSP TSDSSGHDS PFAESTFVEDTHENTELVSADTETKPAVCSVVVPPVEL
 ENGLNADEHMANTDSICQPLIKGRSAPGRNLNQP SAVGTRQQKLSAFQQHLNFSQVQHFSGHQEWNGN
 FGHRQQAYIPTSVTSNPFTLSHGSPNHTAVHAHLAGNTHLGGQPTLLPYPSSATLSSAAPVAHLLASPC
 TSRPMLQHPTYNISHPSGIVHQVPVGLNPRLLPSPTIHQTQYKPIFPPHSYIAASPAYTGFP LSPTKLSQ
 YPYM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

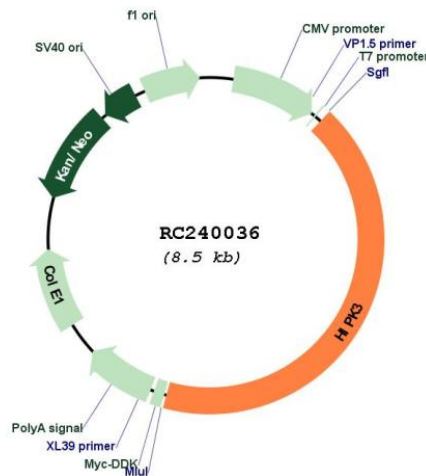
Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001278162

ORF Size: 3582 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

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_001278162.1](#), [NP_001265091.1](#)

RefSeq Size: 7413 bp

RefSeq ORF: 3585 bp

Locus ID: 10114

Cytogenetics: 11p13

Protein Families: Druggable Genome, Protein Kinase, Transcription Factors

MW: 131.7 kDa

Gene Summary: Serine/threonine-protein kinase involved in transcription regulation, apoptosis and steroidogenic gene expression. Phosphorylates JUN and RUNX2. Seems to negatively regulate apoptosis by promoting FADD phosphorylation. Enhances androgen receptor-mediated transcription. May act as a transcriptional corepressor for NK homeodomain transcription factors. The phosphorylation of NR5A1 activates SF1 leading to increased steroidogenic gene expression upon cAMP signaling pathway stimulation. In osteoblasts, supports transcription activation: phosphorylates RUNX2 that synergizes with SPEN/MINT to enhance FGFR2-mediated activation of the osteocalcin FGF-responsive element (OCFRE).[UniProtKB/Swiss-Prot Function]