

Product datasheet for **SC323684**

HCK (NM_002110) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HCK (NM_002110) Human Untagged Clone
Tag:	Tag Free
Symbol:	HCK
Synonyms:	JTK9; p59Hck; p61Hck
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_002110, the custom clone sequence may differ by one or more nucleotides

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CTGGGGGGGGCGCTCAAGCTGCGAGGATCCGGGCTGCCCGGAGACGAGGAGCGGGCGCCAGGATGGGGT
GCATGAAGTCCAAGTTCCTCCAGGTCGGAGGCAATACATTCTCAAAAACGAAACCAGCCAGCCACACA
CTGTCTGTGTACGTGCCGGATCCACATCCACCATCAAGCCGGGGCCTAATAGCCACAACAGCAACACA
CCAGGAATCAGGGAGGCAGGCTCTGAGGACATCATCGTGGTTGCCCTGTATGATTACGAGGCCATTACC
ACGAAGACCTCAGCTTCCAGAAGGGGGACCAGATGGTGGTCTAGAGGAATCCGGGGAGTGGTGAAGGC
TCGATCCCTGGCCACCCGGAAGGAGGGCTACATCCCAAGCAACTATGTCGCCCGGTTGACTCTCTGGAG
ACAGAGGAGTGGTTTTTCAAGGGCATCAGCCGGAAGGACGAGAGCGCAACTGCTGGCTCCCGGCAACA
TGCTGGGCTCCTTCATGATCCGGGATAGCGAGACCACTAAAGGAAGCTACTCTTTGTCCGTGCGAGACTA
CGACCCTCGGCAGGGAGATACCGTGAACATTACAAGTCCGGACCCTGGACAACGGGGGCTTCTACATA
TCCCCCGAAGCACCTTCAGCACTCTGCAGGAGCTGGTGGACCACTACAAGAAGGGGAACGACGGGCTCT
GCCAGAAACTGTGGTGCCTGCATGTCTTCAAGCCCCAGAAGCCTTGGGAGAAAGATGCCTGGGAGAT
CCCTCGGGAATCCCTCAAGCTGGAGAAGAACTTGGAGCTGGGCAGTTTGGGGAAGTCTGGATGGCCACC
TACAACAAGCACACCAAGGTGGCAGTGAAGACGATGAAGCCAGGGAGCATGTCGGTGGAGGCCCTCTCGG
CAGAGGCCAACGTGATGAAAACCTGTCAGCATGACAAGCTGGTCAAACCTCATGCGGTGGTCAACAGGA
GCCCATCTACATCATCAGGAGTTCATGGCCAAAGGAAGCTTGTGGACTTTCTGAAAAGTATGAGGGC
AGCAAGCAGCCATTGCCAAAACCTATTGACTTCTCAGCCAGATTGCAGAAGGCATGGCCTTCATCGAGC
AGAGGAACTACATCCACCAGACCTCCGAGCTGCCAACATCTTGGTCTCTGCATCCCTGGTGTGAAGAT
TGCTGACTTTGGCCTGGCCGGGTCAATTGAGGACAACGAGTACACGGCTCGGGAAGGGGCAAGTCCCCC
ATCAAGTGGACAGCTCCTGAAGCCATCAACTTTGGCTCCTTACCATCAAGTCAGAGCTGGTCTGGTCTTTG
GTATCCTGCTGATGGAGATCGTACCTACGGCCGGATCCCTTACCAGGGATGTCAAACCTGAAGTGTAT
CCGAGCTCTGGAGCGTGGATACCGGATGCCTCGCCAGAGAAGTCCCGAGAGGAGCTCTACAACATCATG
ATGCGCTGCTGGAAAACCGTCCGGAGGAGCGCCGACCTTCAATACATCCAGAGTGTGCTGGATGACT
TCTACACGGCCACAGAGAGCCAGTACCAACAGCAGCCATGA
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5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_002110 unedited

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CCCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTGTAGTAA
CCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGCAATTTCGGCAGCAGAGCCGGGCTGCCCGG
AGACGAGGAGCGGGCGCCAGGATGGGGTGCATGAAGTCCAAGTTCCTCCAGGTCGGAGGCAATACATTC
TCAAAAACGAAACCAGCCAGCCACACTGTCTGTGTACGTGCCGGATCCACATCCACCATCAAGC
CGGGCCATAATAGCCACAACAGCAACACACCAGGAATCAGGGAGGAGGCTCTGAGGACATCATCGGTGG
TTGCCCTGTATGATTACGAGGCCATTCACCCACGAAGGACCTCAGCTTCCAGAAAAGGGGGACCCAGATGG
TGGTCCCTAGAGAAATCCCGGGGAGTGGTGGGAGGCTTCGATCCCTGGCCACCCGAAAGGAGGGCTAA
CATCCCAGCAACTATGTCGCCCGGTGACTCTCTGGAAAACAGAGGAGTGGTTTTTTCAAGGCATCAGCC
GGAAGGACCAACGCAATGGCTGGTCCCGCCACAGGCTGGCTTCTCTGATCGGGATAGCAGACCACTAA
GGAACCTCTTGGCTGTGCAACTCGCACTTGGAGGAAATCGGGACATTACATTGCAACCTGCACAGGGC
TTACATATCCCGAGCCTTCAACTTGAAGCGGGGACAATCAAAGGAACAGGCTTGAACCTGTGCCGAGT
TCAGTAACTTGAACCGATCCTGGATTCTTCGAAACGTTCCCGCCTGGACTTGAATCTACAGCCAATG
GGTGA
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Kinase Domain Sequence: >SC323684 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

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TMKGRTAGACTTGGAGCTGGGCAGTTTGGGGAAGTCTGGATGGCCACCTACAACAAGCACACCAAGGTGG
CAGTGATGACGATGAAGCCAGGGAGCATGTCGGTGGAGGCCTTCTGGCAGAGGCCAACGTGATGAAAAC
TCTGCAGCATGACAAGCTGGTCAAACCTCATGCGGTGGTCAACAAGGAGCCCATCTACATCATCACGGAG
TTCATGGCCAAAGGAAGCTTGTGGACTTTCTGAAAAGTATGATGAG
```

Restriction Sites: Please inquire

ACCN:	NM_002110
Insert Size:	1790 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:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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:	<ol style="list-style-type: none">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_002110.1 , NP_002101.1
RefSeq Size:	2015 bp
RefSeq ORF:	1518 bp
Locus ID:	3055
UniProt ID:	P08631
Cytogenetics:	20q11.21
Domains:	pkinase, SH2, TyrKc, SH3, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Chemokine signaling pathway, Fc gamma R-mediated phagocytosis

Gene Summary:

The protein encoded by this gene is a member of the Src family of tyrosine kinases. This protein is primarily hemopoietic, particularly in cells of the myeloid and B-lymphoid lineages. It may help couple the Fc receptor to the activation of the respiratory burst. In addition, it may play a role in neutrophil migration and in the degranulation of neutrophils. Multiple isoforms with different subcellular distributions are produced due to both alternative splicing and the use of alternative translation initiation codons, including a non-AUG (CUG) codon. [provided by RefSeq, Feb 2010]

Transcript Variant: This variant (1) encodes two isoforms due to the use of alternative translation initiation codons, as demonstrated in PMIDs 1875927 and 7791757. The longer isoform (a, also known as p61HCK) is derived from an upstream non-AUG (CUG) start codon, while the shorter isoform (b, also known as p59HCK) is derived from a downstream AUG start codon. The longer isoform (a) is represented in this RefSeq. CCDS Note: This CCDS, which is supported by the mRNAs AK026432.1, BC108930.1 and others, represents a long human HCK isoform, known as p61HCK, as described in PMIDs 1875927 and 7791757. This isoform initiates translation from a non-AUG (CUG) start codon that is well-conserved and present in a strong Kozak signal context. Alternative translation initiation from a downstream AUG start codon produces an isoform that is 21 aa shorter at the N-terminus. The shorter isoform, which is known as p59HCK, is represented by CCDS 54455.1. These isoforms exhibit distinct subcellular distributions, as indicated in PMID:7791757.