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Product datasheet for SC323353

NEK4 (NM_003157) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEK4 (NM_003157) Human Untagged Clone
Tag:	Tag Free
Symbol:	NEK4
Synonyms:	NRK2; pp12301; STK2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC323353 sequence for NM_003157 edited (data generated by NextGen Sequencing)

ATGCCCCTGGCCGCCTACTGCTACCTGCGGGTCGTGGGCAAGGGGAGCTATGGAGAGGTG
ACGCTTGTGAAGCACCGGCGGGACGGCAAGCAGTATGTCATCATGAAACTGAACCTCCGA
AATGCCTCTAGCCGAGAGCGGCGAGCTGCTGAACAGGAAGCCCAGCTCTTGTCTCAGTTG
AAGCATCCCAACATTGTCACCTACAAGGAGTCATGGGAAGGAGGAGATGGTCTGCTCTAC
ATTGTCATGGGCTTCTGTGAAGGAGGTGATTTGTACCGAAAGCTCAAGGAGCAGAAAGGG
CAGCTTCTGCCTGAGAATCAGGTGGTAGAGTGGTTTGTACAGATCGCCATGGCTTTGCAG
TATTTACATGAAAAACACATCCTTCATCGAGATCTGAAAACTCAAAATGTCTTCCTAACA
AGAACAAACATCATCAAAGTAGGGGACCTAGGAATTGCCCGAGTGTTAGAGAACCACTGT
GACATGGCTAGCACCCTCATTGGCACACCCTACTACATGAGCCCTGAATTGTTCTCAAAC
AAACCCTACAACTATAAGTCTGATGTTTGGGCTCTAGGATGCTGTGTCTATGAAATGGCC
ACCTTGAAGCATGCTTTCAATGCAAAAGATATGAATTCTTTAGTTTATCGGATTATTGAA
GGAAAGCTGCCACCAATGCCAAGAGATTACAGCCCAGAGCTGGCAGAACTGATAAGAACA
ATGCTGAGCAAAAGGCCTGAAGAAAGGCCGTCTGTGAGGAGCATCCTGAGGCAGCCTTAT
ATAAAGCGGCAAATCTCCTTCTTTTTGGAGGCCACAAAGATAAAAACCTCCAAAAATAAC
ATTAAAAATGGTGACTCTCAATCCAAGCCTTTTGCTACAGTGGTTTCTGGAGAGGCAGAA
TCAAATCATGAAGTAATCCACCCCCAACCACTCTCTTCTGAGGGCTCCCAGACATATATA
ATGGGTGAAGGCAAATGTTTGTCCCAGGAGAAACCCAGGGCCTCTGGTCTCTTGAAGTCA
CCTGCCAGTCTGAAAGCCCATACCTGCAAACAGGACTTGAGCAATACCACAGAACTAGCC
ACAATCAGTAGCGTAAATATTGACATCTTACCTGCAAAAGGGAGGGATTCAGTGAGTGAT
GGCTTTGTTCAGGAGAATCAGCCAAGATATTTGGATGCCTCTAATGAGTTAGGAGGTATA
TGCAGTATTTCTCAAGTGGAAGAGGAGATGCTGCAGGACAACACTAAATCCAGTGCCCAG
CCTGAAAACCTGATTCCCATGTGGTCCTCTGACATTGTCACTGGGGAAAAGAATGAACCA
GTGAAGCCTCTGCAGCCCCTAATCAAAGAACAAAAGCCAAAGGACCAGAGTCTTGCCCTG
TCGCCCAAGCTGGAGTGCAGTGGCACAATCTTGGCTCACAGCAACCTCCGCCTCCTGGGT
TCAAGTGATTCTCCAGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCGTGTGCCACCAC
GCCCAGGATCAAGTTGCTGGTGAATGTATTATAGAAAAACAGGGCAGAATCCACCCAGAT
TTACAGCCACACAACTCTGGGTCTGAACCTTCCCTGTCTCGACAGCGACGGCAAAAGAGG
AGAGAACAGACTGAGCACAGAGGGGAAAAGAGACAGGTCCGCAGAGATCTCTTTGCTTTC
CAAGAGTCGCCTCCTCGATTTTTGCCTTCTCATCCCATTGTTGGGAAAGTGGATGTCACA
TCAACACAAAAAGAGGCTGAAAACCAACGTAGAGTGGTCACTGGGTCTGTGAGCAGTTCA
AGGAGCAGTGAGATGTCATCATCAAAGGATCGACCATTATCAGCCAGAGAGAGGAGGCGA
CTAAAGCAGTCACAGGAAGAAATGTCCTCTTCAGGCCCTTCAGTGAGGAAAGCGTCTCTG
AGTGTAGCAGGGCCAGGAAAACCCCAGGAAGAAGACCAGCCCTTGCCTGCCCGACGGCTC
TCCTCTGACTGCAGCGTCACTCAGGAAAGGAAACAGATTCATTGTCTGTCTGAGGATGAG
TTAAGTTCTTCTACAAGTTCAACTGATAAGTCAGATGGGGATTACGGGGAAGGGAAAGGT
CAGACAAATGAAATTAATGCCTTGGTACAATTGATGACTCAGACCCTGAAACTGGATTCT
AAAGAGAGCTGTGAAGATGTCCCGGTAGCAAACCCAGTGTCAGAATTCAAACTTCATCGG
AAATATCGGGACACACTGATACTTCATGGGAAGGTTGCAGAAGAGGCAGAGGAAATCCAT
TTTAAAGAGCTACCTTCAGCTATTATGCCAGGTTCTGAAAAGATCAGGAGACTAGTTGAA
GTCTTGAGAACTGATGTAATTCGTGGCCTGGGAGTTCAGCTTTTAGAGCAGGTGTATGAT
CTTTTGGAGGAGGAGGATGAATTTGATAGAGAGGTACGTTTGCGGGAGCACATGGGTGAA
AAGTATACAACTTACAGTGTGAAAGCTCGCCAGTTGAAATTTTTTGAAGAAAACATGAAT
TTTTGA

Clone variation with respect to NM_003157.4
104 a=>t;105 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_003157 unedited
CCCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA
CCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCGGGCCCGGCTGC
CTCAACAGCCGCCCCCACTGCCCCCTCTCGGGCATGAACCGAGCTTCTTGTTGCCGCCCGCTGCCCTACC
CGCCGCTGCCGCCGCATCCCGACTCTGGGCCAGCGCTGGGAACATGCCCCTGGCCGCCTACTGCTACCTG
CGGGTCGTGGGCAAGGGGAGCTATGGAGAGGTGACGCTTGTGAAGCACCGGCGGGGACGGCCAAGGCAGT
GATGTCATCATGAAACTGAACCTCCGAAATGCCTCTAGCCCGAGAGCGGGCGAGCTGCTTGACCAGGAGG
CCAACCTCTTGTCCTCAGTTGAGCCATCCCACCTTTGTCCCCTCCAAGGATTCAGGGAAAGGAGGGAAAG
GGTCGGTCTACCATTGTAAGGGGCTTTGGTAAAGGAGGTGATTGGAACGAAAACTTCAGGGACCAAAAGG
GGGACCTTCTGCCTGAAAACCAGGGGTTAGAGGGTTTTGTACAGATGCCTGGGCCTTCATATATTTATGT
GAAAAACACTTCTTTCTCAGATATCGAGAACTCTCAAGTGTTTTCTACGAACCACACCTCTCAGTTGGGG
CCCTGGATTTGCCCATGTGTAGAACCCTGTGAATGGGAGACCCATTGCCCCCTATAGAGACCGAGTGTGT
CTACCCACCCACCCTAATCTGAAGTTGGGCTTACAGCTCGTCTAAAAGGCACCTTAGACTGCTCTATGCA
AGAATGAGTCTCTCGTATCGGCATGAGGAGTGCTCATGTGCGGGAATCGTCCAACTGTCCCAGTAGTACT
CCCTGACCCAGCGTCGAAGGCGCCT

Kinase Domain Sequence:

>SC323353 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
CCYTGMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTC
AGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCGGGCCCGGCTGCCTCAA
CAGCCGCCCCCACTGCCCCCTCTCGGGCATGAACCGAGCTTCTTGTTGCCGCCCGCTGCCCTACCCGCCG
CTGCCGCCGCATCCCGACTCTGGGCCAGCGCTGGGAACATGCCCC

Restriction Sites: Please inquire

ACCN: NM_003157

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:
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_003157.1, NP_003148.1

RefSeq Size: 3698 bp

RefSeq ORF:	2526 bp
Locus ID:	6787
UniProt ID:	A5YM70
Cytogenetics:	3p21.1
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	The protein encoded by this gene is a serine/threonine protein kinase required for normal entry into replicative senescence. The encoded protein also is involved in cell cycle arrest in response to double-stranded DNA damage. Finally, this protein plays a role in maintaining cilium integrity, and defects in this gene have been associated with ciliopathies. [provided by RefSeq, Jan 2017] Transcript Variant: This variant (1) encodes the longest isoform (1). 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.