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Product datasheet for SC108482

NEK2 (NM_002497) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEK2 (NM_002497) Human Untagged Clone
Tag:	Tag Free
Symbol:	NEK2
Synonyms:	HsPK21; NEK2A; NLK1; PPP1R111; RP67
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF sequence for NM_002497 edited
ATGCCTTCCCGGGCGGAGGACTATGAAGTGTTGTACACCATTGGCACAGGCTCCTACGGC
CGCTGCCAGAAGATCCGGAGGAAGAGTGATGGCAAGATATTAGTTTGGAAAGAACTTGAC
TATGGCTCCATGACAGAAGCTGAGAAACAGATGCTTGTTTCTGAAGTGAATTTGCTTCGT
GAACTGAAACATCCAAACATCGTTCGTTACTATGATCGGATTATTGACCGGACCAATACA
ACACTGTACATTGTAATGGAATATTGTGAAGGAGGGGATCTGGCTAGTGTAATTACAAAG
GGAACCAAGGAAAGGCAATACTTAGATGAAGAGTTTGTTCTTCGAGTGATGACTCAGTTG
ACTCTGGCCCTGAAGGAATGCCACAGACGAAGTGATGGTGGTCATACCGTATTGCATCGG
GATCTTAAACCAGCCAATGTTTTCCTGGATGGCAAGCAAAACGTCAAGCTTGGAGACTTT
GGGCTAGCTAGAATATTAAACCATGACACGAGTTTTGCAAAAACATTTGTTGGCACACCT
TATTACATGTCTCCTGAACAAATGAATCGCATGTCCTACAATGAGAAATCAGATATCTGG
TCATTGGGCTGCTTGCTGTATGAGTTATGTGCATTAATGCCTCCATTTACAGCTTTTAGC
CAGAAAGAACTCGCTGGGAAAATCAGAGAAGGCAAATTCAGGCGAATTCCATACCGTTAC
TCTGATGAATTGAATGAAATTATTACGAGGATGTTAAACTTAAAGGATTACCATCGACCT
TCTGTTGAAGAAATTCTTGAGAACCCTTTAATAGCAGATTTGGTTGCAGACGAGCAAAGA
AGAAATCTTGAGAGAAGAGGGCGACAATTAGGAGAGCCAGAAAAATCGCAGGATTCCAGC
CCTGTATTGAGTGAGCTGAAACTGAAGGAAATTCAGTTACAGGAGCGAGAGCGAGCTCTC
AAAGCAAGAGAAGAAAGATTGGAGCAGAAAGAACAGGAGCTTTGTGTTCGTGAGAGACTA
GCAGAGGACAAACTGGCTAGAGCAGAAAATCTGTTGAAGAACTACAGCTTGCTAAAGGAA
CGGAAGTTCCTGTCTCTGGCAAGTAATCCAGAACTTCTTAATCTTCCATCCTCAGTAATT
AAGAAGAAAGTTCATTTCAGTGGGGAAAGTAAAGAGAACATCATGAGGAGTGAGAATTCT
GAGAGTCAGCTCACATCTAAGTCCAAGTGCAAGGACCTGAAGAAAAGGCTTCACGCTGCC
CAGCTGCGTGCTCAAGCCCTGTCAGATATTGAGAAAAATTACCAACTGAAAAGCAGGCAG
ATCCTGGGCATGCGCTAG

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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_002497 unedited
GGAGCCTCCATTTTGTAATACGACTTACTATAGGCGGCACGCGAATTCGCACCAGGCGGG
TCAGTGCTGCTCGGGGGCTTCTCCATCCAGGTCCCTGGAGTTCCTGGTCCCTGGAGCTCC
GCACTTGGCGGCGCAACCTGCGTGAGGCAGCGCGACTCTGGCGACTGGCCGGCCATGCCT
TCCCGGGCGGAGGACTATGAAGTGTTGTACACCATTGGCACAGGCTCCTACGGCCGCTGC
CAGAAGATCCGGAGGAAGAGTGATGGCAAGATATTAGTTTGGAAAGAACTTGACTATGGC
TCCATGACAGAAGCTGAGAAACAGATGCTTGTTTCTGAAGTGAATTTGCTTCGTGAACTG
AAACATCCAAACATCGTTCGTTACTATGATCGGATTATTGACCGGACCAATACAACACTG
TACATTGTAATGGAATATTGTGAAGGAGGGGATCTGGCTAGTGTAATTACAAAGGGAACC
AAGGAAAGGCAATACTTAGATGAAGAGTTTGTTCTTCGAGTGATGACTCAGTTGACTCTG
GCCCTGAAGGAATGCCACAGACGAAGTGATGGTGGTCATACCGTATTGCATCGGGATCTG
AAACCAGCCAATGTTTTCCTGGATGGCAAGCAAAACGTCAAGCTTGGAGACTTTGGGCTA
GCTAGAATATTAAACCACGACACGAGTTTTGCAAAAACATTTGTTGGCACACCTTATTAC
ATGTCTCCTGAACAAATGAATCGCATGTCCTANCATGAGAAATCAGATATCTGGTCATTG
GGCTGCTTGCTGTATGAGTTATGTGCATTAATGCCTCCATTTACAGNNCTTTAGCCAGAA
GAACTCGCTGGGGAAATCAGAGAAGGCAAATTCAGGCGAATTCCATACCGTTACTCTGAT
GAATTGAATGAATT
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3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_002497 unedited
GGGGGAGCCCGGGCCCACCCCCCAAATTTTTANNNNNNNNNGTACGTTGNNACCGCGNNC
CGCTTTCTNANNGATCGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAACTG
AAAAAATCTTTTATTTAGGGGGAAAGAAGTGGTAAATGACAGACAGCTCATATTCTGTTA
AACAGAAAAAAAAAAAGATACAAACATCACAGGGATGAATTTTCACAAAGCTAACAGATTT
GAACTACAGAGCAATGGAATATTTATAAGCAAGATGTCATGGTATTAATGACCAAATTGC
ATCTAACTGGGTTTTCTAAGCTCAAAAACATTTAAAATCTCAAACTTAAAATTTAAATCT
AGACATGACAATTGTAAGCATACCACTCAGTCATTTAAAACTATTCAGGGAGGGCTACTC
TTCCTGCATAAATATTTTTTTCCTAACATTATTTTTTCTCCCAAGATTTAAAATGTCACA
TCTCATGTTCCTACTAGTAATCACACACAGGATTAAAAGCCCAACCAAGAAAGTATTCTT
TTTATAATATGTTCTTAAAAGAAGAAAGAAAAATTAAATGTGAACATTTTGTACAATAGT
TGCTGAAGAACAGTAAAACCAATTCCGAAATATCATGTGTACTATACAGAAAGGCATGGC
TCATGGAACCAAGTATTCAACACTACAGCATTTGAATATCAGTCTTTAAAGGTTGGTAAT
ATTACATCCTGTACACAGCTCTGTGTCTCTCTACCTGGCTAGCGCATGCCCAGGATCTGC
CTGCTTTTCATTTGGAATTTTTCTAAAATCTGACAGGCTTGACCCGCACCTGGCACGTGA
AGCCTTTTCTCAGGCCCTTGCCTTGGACTTAAAGTGACCTGACTCCAAAATCTCCTCCTC
AGAAGTCCCTTACTTCCCCACGAAAGAACTTCTCTTAA
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Restriction Sites: NotI-NotI

ACCN: NM_002497

Insert Size: 2210 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).

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_002497.2, NP_002488.1
RefSeq Size:	2130 bp
RefSeq ORF:	1338 bp
Locus ID:	4751
UniProt ID:	P51955
Cytogenetics:	1q32.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	This gene encodes a serine/threonine-protein kinase that is involved in mitotic regulation. This protein is localized to the centrosome, and undetectable during G1 phase, but accumulates progressively throughout the S phase, reaching maximal levels in late G2 phase. Alternatively spliced transcript variants encoding different isoforms with distinct C-termini have been noted for this gene. [provided by RefSeq, Feb 2011] Transcript Variant: This variant (1) represents the predominant transcript, and encodes the longest isoform (1, also known as NEK2A). The C-terminus (aa 399-445) of this isoform was shown to be responsible for its nucleolar localization (PMID:15161910). Isoforms 1 and 2 (which differ at the C-terminus) have also been reported to exhibit distinct pattern of expression during mitosis (PMID:11742531).