

## Product datasheet for **SC109481**

### NEK3 (NM\_002498) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NEK3 (NM_002498) Human Untagged Clone
Tag:	Tag Free
Symbol:	NEK3
Synonyms:	HSPK36
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002498, the custom clone sequence may differ by one or more nucleotides

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ATGGATGACTACATGGTCTGAGAATGATTGGGGAGGGCTCCTTCGCGCAGAGCTCTTTGGTTCAGCATG
AAAGCAGTAATCAGATGTTTGCCATGAAAGAAATAAGGCTTCCCAAGTCTTTCTCTAATACACAGAATTC
TAGGAAGGAGGCTGTTCTTTTAGCCAAAATGAAACACCCTAATATTGTTGCCTTCAAAGAATCATTGAA
GCTGAAGGACACTTGTATATTGTGATGGAATACTGTGATGGAGGGGATCTAATGCAAAAGATTAACAGC
AGAAAGGAAAGTTATTTCTGAAGACATGATACTTAATTGGTTTACCCAAATGTGCCTTGGAGTAAATCA
CATTACACAAGAAACGTGTGCTACACAGAGATATCAAGTCCAAGAATATCTTCTCACTCAGAATGGAAAA
GTGAAATTGGGAGACTTTGGATCTGCCGCTCTTCTCTCCAATCCGATGGCATTGCTTGTACCTATGTGG
GAACTCCTTATTATGTGCCTCCAGAAATTTGGGAAAACCTGCCTTATAACAATAAAAAGTGACATCTGGTC
CTTGGGTTGCATCCTGTATGAACTCTGTACCCTTAAGCATCCATTTACGGCAAATAGTTGGAAAAATCTT
ATCCTCAAAGTATGTCAAGGGTGCATCAGTCCACTGCCGCTCATTACTCCTATGAACTTCAGTTCCTAG
TCAAGCAGATGTTTAAAAGGAATCCCTCACATCGCCCCTCGGCTACAACGCTTCTCTCGAGGCATCGT
AGCTCGGCTTGTCCAGAAGTGCTTACCCCCGAGATCATCATGGAATATGGTGAGGAAGTATTAGAAGAA
ATAAAAAATTCGAAGCATAACACACCAAGAAAAAACAACCCAGCAGAATCAGGATAGCTTTGGGAA
ATGAAGCAAGCACAGTGCAAGAGGAAGAACAAGATAGAAAAGGGTAGCCATACTGATTTGAAAGCATTAA
TGAAAATTTAGTTGAAAGTGCATTGAGAAGAGTAAACAGAGAAGAAAAAGGTAATAAGTCAGTCCATCTG
AGGAAAGCCAGTTCACCAAATCTTCATAGACGACAGTGGGAGAAAAATGTACCCAATACAGCTCTTACAG
CTTTGAAAAATGCATCCATACTCACCTCCAGTTTAAACAGCAGAGGACGATAGAGGTGGTTCTGTAATAAA
GTACAGCAAAAACTACTCGTAAGCAGTGGCTCAAAGAGACCCCTGACACTTTGTTGAACATCCTTAAG
AATGCTGATCTCAGCTTGGCTTTTCAAACATACACAATATATAGACCAGGTTTCAAGGGTTCTTGAAGG
GCCCCCTGTCTGAAGAAACAGAAGCATCGGACAGTGTGATGGAGGTCACGATTCTGTCATTTGGATCC
AGAGCGACTTGAGCCTGGGCTAGATGAGGAGGACCGGACTTTGAGGAGGAAGATGACAACCCCGACTGG
GTGTCAGAGCTGAAGAAGCGAGCTGGATGGCAAGGCTGTGCGACAGATAA
```



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002498 unedited  
 NGGGTATAACACCCGCCCGTTGGCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTAT  
 ATAAGCAGAGCTCGTTTGTAGTGAACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGG  
 CCGCGAATTCGGCAGCAGGATAAGGGTTATTAGTAAAGTTTGTATGTGGACTCAAGTT  
 GGTGCCTCCCCATTGGTAAGAGTTGCTCTCTCTTCTGGTACTGGAAGGAAGACACA  
 TTTACAAATGGATATTTATTACCTGTACATAGGAAAATTTATGCCCTGCATTTATACAAA  
 AAAGGGAGGGCAAAGAGCAAATTTGGTTTCAGCTCAAACAATTTTACATGAAAGTGGA  
 TATTTTGGGGTAGCATACACTGATCCTCTTCAAAGGAATAATTTGCTTTTCTCTTATCA  
 TGGTTATGAGAGCTACTTTGAATTAATTTTGGTTTTTGAAGTACATTTAATTCTCAAA  
 TGTTTTCTGTTTTGAATGCAGTTTGGGAGAGCCCATGGTACTGCGTGAGTGGAGCCAG  
 CTGTGTGGATGCCCCAGCATGGATGACTACATGGTCTGAGAATGATTGGGGAGGGCTCC  
 TTCGGCAGAGCTTTTTGGTTTCAGCATGAAAGCAGTAATCAGATGTTGCCATGAAAGAA  
 ATAAGGCTTCCCAAGTCACTACTAAAGAAATTAGCTCACTTTGAAAGTACATGCAGT  
 TTATATAAAGAATAAGTTTTTGGCCAGGCACAGTGGCTCACACCTGTAATCCCAGCACT  
 TTGGGAGGTGGGAGGCGGTAGATCACCTGAGGTGAGGATTTGAGACCGGCCTGAGGTC  
 ANGAGTTTGGGCCAGCCTGGCCAACATGGGGAAAACCCGTCTCTN

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002498 unedited  
 AACTGTGTACCGCGCCGATTCTAGGATCGAGTTAAATCTTTTTTTTTTTTTTTCATAA  
 TTAAATATATTTAATTCTCCAAACCTTTAGGAAATGTAAGAGAGTCACATAATAATAAA  
 CACATATCATAATGTGAATAATATCATACGGGCTGCTATAAAGGTCTGTGGTCAGCATCC  
 CTCTGAGGTAGGCATTATTATCTTCATTTTATGGTTTAGGAAATGGGGCTTGAAGAGGT  
 TAAGTAATTTCCACAATCACACAAGTAGGTAGTGGCACGCTAGCATCCCATTTCTGTTC  
 TATGGGACTGCAAAGCCCGATGCTCACACTCATTCCACTATACCTTCTCCCTTGAGTTCA  
 AAACTTACAGGAGTTCTAGACTTTTCAAACCTACGATACTAATCAAGAACGATTTTAAG  
 TATTAAGAGTTTCTCTGCTTCTATTCTGTTTCAAAGGAAAATACGTCGCATGAACTC  
 ATGATCATCTCAGCATGAACTCCTGAGTGAAGCCTCTCCTCAGCGTGACTCAGGAACATT  
 TCCTCAGGCATTATCTGTGCGACAGGCCTTGCCATCCAGCTCGTCTTTCAGCTCTGACA  
 CCCAGTCGGGGTGTGCATCTTCTCCTCAAATCCGTGCTCCTCATCTAGCCCAGGCTC  
 AAGTCGCTCTGGATCCAAATGACAGAATCGTGACCTCCATCAACTGTCCGATGCCTC  
 TGTTTCTCAGACAGGGCCTTTCAAGAACCCTTGAACCGGGTATAATTGTGTAGTTT  
 GAAAACCCAACTGAATCACCATTTCTTAGGATGTCAACAAGTGTGAGGGTCTCTTGAGCA  
 CTGCTTACAGTAGAATTTTGGCCGACTTAATACAGAACCACCTCTTCTGTTCTTGCTTT  
 AAACGGAAGTGAATTTGGATGCATTTCCAA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002498

**Insert Size:**

4700 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\\_002498.1](#), [NP\\_002489.1](#)

**RefSeq Size:** 2332 bp

**RefSeq ORF:** 1521 bp

**Locus ID:** 4752

**UniProt ID:** [P51956](#)

**Cytogenetics:** 13q14.3

**Protein Families:** Druggable Genome, Protein Kinase

**Gene Summary:** This gene encodes a member of the NimA (never in mitosis A) family of serine/threonine protein kinases. The encoded protein differs from other NimA family members in that it is not cell cycle regulated and is found primarily in the cytoplasm. The kinase is activated by prolactin stimulation, leading to phosphorylation of VAV2 guanine nucleotide exchange factor, paxillin, and activation of the RAC1 GTPase. Two functional alleles for this gene have been identified in humans. The reference genome assembly (GRCh38) represents a functional allele that is associated with the inclusion of an additional coding exon in protein-coding transcripts, compared to an alternate functional allele that lacks the exon. [provided by RefSeq, Sep 2019]

**Transcript Variant:** This variant (1) represents the longest transcript. Variants 1 and 2 encode the same isoform (a). **Sequence Note:** This sequence contains an extra 'A' at the end of exon 10 (nt 1253) that is not found in the reference (NC\_000013.9), Celera, or HuRef assemblies. It represents the product of an alternate haplotype supported by human transcripts and conserved with other primate genomes.