

Product datasheet for **RC205775**

NEK3 (NM_152720) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEK3 (NM_152720) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NEK3
Synonyms:	HSPK36
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205775 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATGACTACATGGTCTGAGAATGATTGGGGAGGGCTCCTTCGGCAGAGCTCTTTGGTTTCAGCATG
 AAAGCAGTAATCAGATGTTTGCATGAAAGAAATAAGGCTTCCCAAGCTTTCTCTAATACACAGAATTC
 TAGGAAGGAGGCTGTTCTTTTAGCCAAAATGAAACACCCTAATATTGTTGCCTTCAAAGAATCATTGAA
 GCTGAAGGACACTTGTATATTGTGATGGAATACTGTGATGGAGGGATCTAATGCAAAAGATTAACAGC
 AGAAAGGAAAGTTATTTCTGAAGACATGATACTTAATTGGTTTACCCAATGTGCCTTGGAGTAAATCA
 CATTCAACAAGAAACGTGTGCTACACAGAGATATCAAGTCCAAGAATATCTTCTCACTCAGAATGGAAAA
 GTGAAATTGGGAGACTTTGGATCTGCCGCTTCTCTCCAATCCGATGGCATTGCTTGTACCTATGTGG
 GAACTCCTTATTATGTGCCTCCAGAAATTTGGGAAAACCTGCCTTATAACAATAAAAGTGACATCTGGTC
 CTTGGGTTGCATCCTGTATGAACTCTGTACCCTTAAGCATCCATTCAGGCAAAATAGTTGGAAAAATCTT
 ATCCTCAAAGTATGTCAAGGGTGCATCAGTCCACTGCCGCTCATTACTCTATGAACTTCAGTTCCTAG
 TCAAGCAGATGTTTAAAAGGAATCCCTCACATCGCCCTCGGCTACAACGCTTCTCTCGAGGCATCGT
 AGCTCGGCTTGTCCAGAAGTGCTTACCCCCGAGATCATCATGGAATATGGTGAGGAAGTATTAGAAGAA
 ATAAAAAATTCGAAGCATAACACACCAAGAAAAAACAACCCAGCAGAATCAGGATAGCTTTGGGAA
 ATGAAGCAAGCACAGTGAAGAGGAAGAACAAGATAGAAAGGGTAGCCATACTGATTTGGAAAGCATTAA
 TGAAAAATTTAGTTGAAAGTGATTGAGAAGAGTAAACAGAGAAGAAAAAGGTAATAAGTCAGTCCATCTG
 AGGAAAGCCAGTTCACCAAATCTTCATAGACGACAGTGGGAGAAAAATGTACCAATACAGCTCTTACAG
 CTTTGGAAAAATGCATCCATACTCACCTCCAGTTTAAACAGCAGAGGACGATAGAGGTGGTTCTGTAATAAA
 GTACAGCAAAAAATACTACTCGTAAGCAGTGGCTCAAAGAGACCCCTGACACTTTGTTGAACATCCTTAAG
 AATGCTGATCTCAGCTTGGCTTTTCAAACATACACAATATATAGACCAGTTTCAAGGGTTCTTGAAGG
 GCCCCTGTCTGAAGAAACAGAAGCATCGGACAGTGTGATGGAGGTCACGATTCTGTCATTTTGGATCC
 AGAGCGACTTGAGCCTGGGCTAGATGAGGAGGACCGACTTTGAGGAGGAAGATGACAACCCCGACTGG
 GTGTCAGAGCTGAAGAAGCGAGCTGGATGGCAAGGCTGTGCGACAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205775 protein sequence
 Red=Cloning site Green=Tags(s)

MDDYMLRMIGESFGRALLVQHESSNQMFAMKEIRLPKSFNTQNSRKEAVLLAKMKHPNIVAFKESFE
 AEGHLYIVMEYCDGGDLMQKIKQKGLFPEDMILNWFQMC LGVNHIHKRVLHRDIKSKNIFLTQNGK
 VKLGDFGSARLLSNPMAFACTYVGTPTYYPPEIWENLPYNNKSDIWSLGCILYELCTLKHPFQANSWKNL
 ILKVCQGCISPLPSHYSYELQFLVKQMFKRNP SHRPSATLLSRGIVARLVQKCLPPEIIMEYGEEVLEE
 IKNSKHNTPRKKNPSRIRIALGNEASTVQEEEQDRKGSHTDLESINENLVESALRRVNRREEKGNKSVHL
 RKASSPNLHRRQWEKNVPNTALALENASILTSSLTAEDDRGGSVIKYSKNTRKQWLKETPDLLNILK
 NADLSLAFQTYTIYRPGSEGFLKGPLSEETEASDSVDGGHDSVILDPERLEPGLDEEDTDFEEDDNPDW
 VSELKKRAGWQGLCDR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6521_d12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_152720

ORF Size: 1518 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_152720.2](#), [NP_689933.1](#)

RefSeq Size: 2424 bp

RefSeq ORF: 1521 bp

Locus ID: 4752

UniProt ID: [P51956](#)

Cytogenetics: 13q14.3

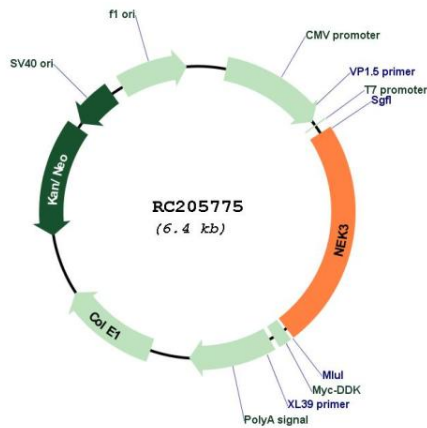
Domains: pkinase, TyrKc, S_TKc

Protein Families: Druggable Genome, Protein Kinase

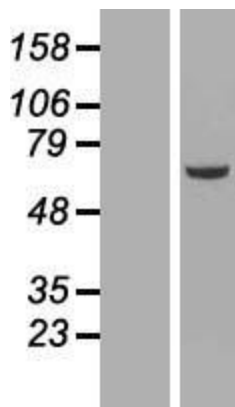
MW: 57.7 kDa

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]

Product images:



Circular map for RC205775



Western blot validation of overexpression lysate (Cat# [LY419289]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC217714] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).