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Product datasheet for RC228402

NEK3 (NM_001146099) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEK3 (NM_001146099) 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)

ORF Nucleotide Sequence:

>RC228402 representing NM_001146099
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATGACTACATGGTCCTGAGAATGATTGGGGAGGGCTCCTTCGGCAGAGCTCTTTTGGTTCAGCATG
AAAGCAGTAATCAGATGTTTGCCATGAAAGAAATAAGGCTTCCCAAGTCTTTCTCTAATACACAGAATTC
TAGGAAGGAGGCTGTTCTTTTAGCCAAAATGAAACACCCTAATATTGTTGCCTTCAAAGAATCATTTGAA
GCTGAAGGACACTTGTATATTGTGATGGAATACTGTGATGGAGGGGATCTAATGCAAAAGATTAAACAGC
AGAAAGGAAAGTTATTTCCTGAAGACATGATACTTAATTGGTTTACCCAAATGTGCCTTGGAGTAAATCA
CATTCACAAGAAACGTGTGCTACACAGAGATATCAAGTCCAAGAATATCTTCCTCACTCAGAATGGAAAA
GTGAAATTGGGAGACTTTGGATCTGCCCGTCTTCTCTCCAATCCGATGGCATTTGCTTGTACCTATGTGG
GAACTCCTTATTATGTGCCTCCAGAAATTTGGGAAAACCTGCCTTATAACAATAAAAGTGACATCTGGTC
CTTGGGTTGCATCCTGTATGAACTCTGTACCCTTAAGCATCCATTTCAGGCAAATAGTTGGAAAAATCTT
ATCCTCAAAGTATGTCAAGGGTGCATCAGTCCACTGCCGTCTCATTACTCCTATGAACTTCAGTTCCTAG
TCAAGCAGATGTTTAAAAGGAATCCCTCACATCGCCCCTCGGCTACAACGCTTCTCTCTCGAGGCATCGT
AGCTCGGCTTGTCCAGAAGTGCTTACCCCCCGAGATCATCATGGAATATGGTGAGGAAGTATTAGAAGAA
ATAAAAAATTCGAAGCATAACACACCAAGAAAAAAACAAGAGGAAGAACAAGATAGAAAGGGTAGCCATA
CTGATTTGGAAAGCATTAATGAAAATTTAGTTGAAAGTGCATTGAGAAGAGTAAACAGAGAAGAAAAAGG
TAATAAGTCAGTCCATCTGAGGAAAGCCAGTTCACCAAATCTTCATAGACGACAGTGGGAGAAAAATGTA
CCCAATACAGCTCTTACAGCTTTGGAAAATGCATCCATACTCACCTCCAGTTTAACAGCAGAGGACGATA
GAGGTGGTTCTGTAATAAAGTACAGCAAAAATACTACTCGTAAGCAGTGGCTCAAAGAGACCCCTGACAC
TTTGTTGAACATCCTTAAGAATGCTGATCTCAGCTTGGCTTTTCAAACATACACAATATATAGACCAGGT
TCAGAAGGGTTCTTGAAAGGCCCCCTGTCTGAAGAAACAGAAGCATCGGACAGTGTTGATGGAGGTCACG
ATTCTGTCATTTTGGATCCAGAGCGACTTGAGCCTGGGCTAGATGAGGAGGACACGGACTTTGAGGAGGA
AGATGACAACCCCGACTGGGTGTCAGAGCTGAAGAAGCGAGCTGGATGGCAAGGCCTGTGCGACAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228402 representing NM_001146099
Red=Cloning site Green=Tags(s)

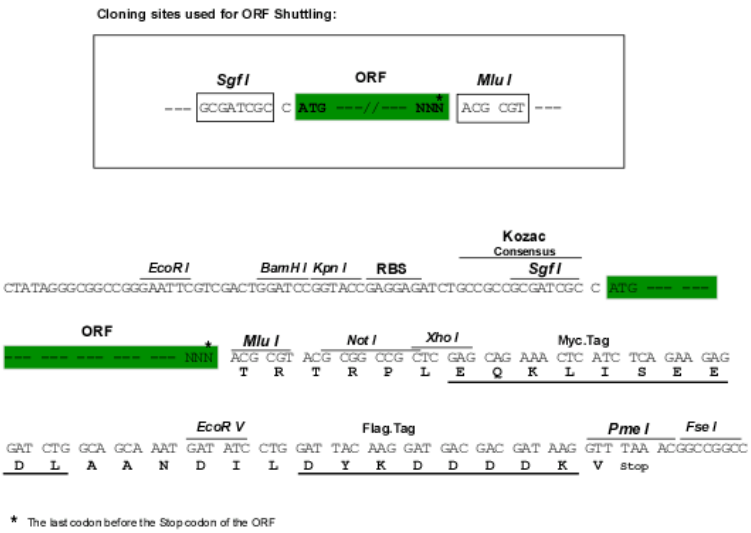
MDDYMVLRMIGEGSFGRALLVQHESSNQMFAMKEIRLPKSFSNTQNSRKEAVLLAKMKHPNIVAFKESFE
AEGHLYIVMEYCDGGDLMQKIKQQKGKLFPEDMILNWFTQMCLGVNHIHKKRVLHRDIKSKNIFLTQNGK
VKLGDFGSARLLSNPMAFACTYVGTPYYVPPEIWENLPYNNKSDIWSLGCILYELCTLKHPFQANSWKNL
ILKVCQGCISPLPSHYSYELQFLVKQMFKRNPSHRPSATTLLSRGIVARLVQKCLPPEIIMEYGEEVLEE
IKNSKHNTPRKKQEEEQDRKGSHTDLESINENLVESALRRVNREEKGNKSVHLRKASSPNLHRRQWEKNV
PNTALTALENASILTSSLTAEDDRGGSVIKYSKNTTRKQWLKETPDTLLNILKNADLSLAFQTYTIYRPG
SEGFLKGPLSEETEASDSVDGGHDSVILDPERLEPGLDEEDTDFEEEDDNPDWVSELKKRAGWQGLCDR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8063_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001146099

ORF Size: 1467 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_001146099.1, NP_001139571.1

RefSeq ORF: 1470 bp

Locus ID: 4752

UniProt ID: P51956

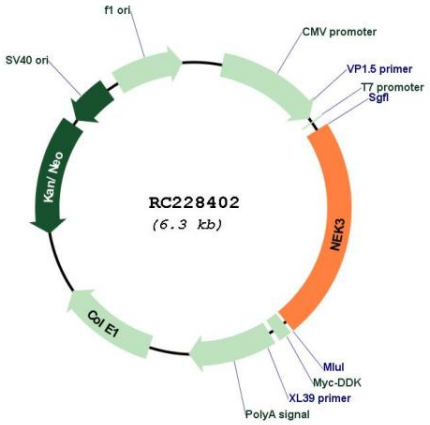
Cytogenetics: 13q14.3

Protein Families: Druggable Genome, Protein Kinase

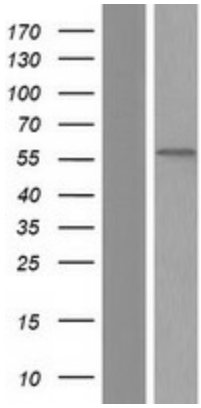
MW: 55.7 kDa

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 RC228402



Western blot validation of overexpression lysate (Cat# [LY431430]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228402 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).