

Product datasheet for **RG208133**

NEK2 (NM_002497) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEK2 (NM_002497) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NEK2
Synonyms:	HsPK21; NEK2A; NLK1; PPP1R111; RP67
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208133 representing NM_002497
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCTTCCCGGGCTGAGGACTATGAAGTGTGTACACCATTGGCACAGGCTCCTACGGCCGCTGCCAGA
 AGATCCGGAGGAAGAGTGATGGCAAGATATTAGTTTGGAAAGAAGCTTACTATGGCTCCATGACAGAAGC
 TGAGAAACAGATGCTTGTCTGAAAGTGAATTTGCTTCGTGAACTGAAACATCCAAACATCGTTCGTTAC
 TATGATCGGATTATTGACCGGACCAATACAACACTGTACATTGTAATGGAATATTGTGAAGGAGGGGATC
 TGGCTAGTGTAATTACAAAGGGAACCAAGGAAAGGCAATACTTAGATGAAGAGTTTGTCTTCGAGTGAT
 GACTCAGTTGACTCTGGCCCTGAAGGAATGCCACAGACGAAGTATGGTGGTCATACCGTATTGCATCGG
 GATCTGAAACCAGCCAATGTTTTCTGGATGGCAAGCAAACGTCAGCTGGAGACTTTGGGCTAGCTA
 GAATATTAACCATGACACGAGTTTTGCAAAAACATTTGTTGGCACACCTTATTACATGTCTCCTGAACA
 AATGAATCGCATGTCCTACAATGAGAAATCAGATATCTGGTCATTGGGCTGCTTGTGTATGAGTTATGT
 GCATTAATGCCTCCATTTACAGCTTTTAGCCAGAAAGAAGCTCGCTGGGAAAATCAGAGAAGGCAAATTC
 GCGAATTCCATACCGTTACTCTGATGAATTGAATGAAATTATTACGAGGATGTTAACTTAAAGGATTA
 CCATCGACCTTCTGTTGAAGAAATCTTGAGAACCCTTAAATAGCAGATTTGGTTGCAGACGAGCAAAGA
 AGAAATCTTGAGAGAAGAGGGCGACAATTAGGAGAGCCAGAAAAATCGCAGGATTCAGCCCTGTATTGA
 GTGAGCTGAAACTGAAGGAAATTCAGTTACAGGAGCGAGAGCGAGCTCTCAAAGCAAGAGAAGAAAGATT
 GGAGCAGAAAGAACAGGAGCTTTGTGTTCTGTGAGAGACTAGCAGAGGACAAACTGGCTAGAGCAGAAAT
 CTGTTGAAGAACTACAGCTTGTAAAGGAACGGAAGTTCTTTCAGTGGGAAAGTAAAGAGAATCATGAGGAG
 TGAGAATTCTGAGAGTCAGCTCACATCTAAGTCCAAGTGAAGGACCTGAAGAAAAGGCTTCACGCTGCC
 CAGCTGCGGGCTCAAGCCCTGTCAGATATTGAGAAAAATTACCAACTGAAAAGCAGACAGATCCTGGGCA
 TGCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG208133 representing NM_002497
 Red=Cloning site Green=Tags(s)

MPSRAEDYEVLYTIGTGSYGRQKIRRKSDGKILVWKELDYGSMTAEKQMLVSEVLLRELKHPNIVRY
 YDRIIDRTNTTLIYVMEYCEGGDLASVITKGTKERQYLDEEFVLRVMTQLTLALKECHRRSDGGHTVLHR
 DLKPANVFLDGKQNVKLGDFGLARILNHDTSFATFVGTPTYMSPEQMNRMYSYNEKSDIWSLGCLLYELC
 ALMPPFTAQFSQKELAGKIREGKFRRIPIRYSDLENEIITRMLNLKDYHRPSVEEILENPLIADLVADEQR
 RNLERRGRQLGEPEKSQDSSPVLSELKLEIQLQERERALKAREERLEQKEQELCVRERLAEDKLARAEN
 LLKNYSLLKERKFLSLASNPELLNLPSVVIKKVHFSGESKENIMRSENSESQLTSSKCKDLKKRLHAA
 QLRAQALSDIEKNYQLKSRQILGMR

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002497

ORF Size: 1335 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_002497.4](#)

RefSeq Size: 2130 bp

RefSeq ORF: 1338 bp

Locus ID: 4751

UniProt ID: [P51955](#)

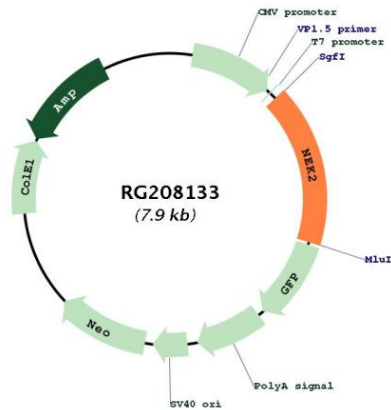
Cytogenetics: 1q32.3

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]

Product images:



Circular map for RG208133