

## Product datasheet for **RG233949**

### NEK2 (NM\_001204182) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NEK2 (NM_001204182) 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)
ORF Nucleotide Sequence:	>RG233949 representing NM_001204182 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCTCCCGGGCTGAGGACTATGAAGTGTGTACACCATTGGCACAGGCTCCTACGGCCGCTGCCAGA  
AGATCCGGAGGAAGAGTGATGGCAAGATATTAGTTTGGAAAGAACTTGACTATGGCTCCATGACAGAAGC  
TGAGAAACAGATGCTTGTCTGAAGTGAATTTGCTTCGTGAACGAAACATCCAACATCGTTCGTTAC  
TATGATCGGATTATTGACCGGACCAATACAACACTGTACATTGTAATGGAATATTGTGAAGGAGGGGATC  
TGGCTAGTGTAATTACAAAGGGAACCAAGGAAAGCAACTTAGATGAAGAGTTTGTCTTCGAGTGAT  
GACTCAGTTGACTCTGGCCCTGAAGGAATGCCACAGACGAAGTATGGTGGTCATACCGTATTGCATCGG  
GATCTGAAACCAGCCAATGTTTTCTGGATGGCAAGCAAAACGTC AAGCTTGGAGACTTTGGGCTAGCTA  
GAATATTAACCATGACACGAGTTTTGCAAAAACATTTGTTGGCACACCTTATTACATGTCTCCTGAAACA  
AATGAATCGCATGTCTACAATGAGAAATCAGATATCTGGTCATTGGGCTGCTTGTGTATGAGTTATGT  
GCATTAATGCCTCCATTTACAGCTTTTAGCCAGAAAGAACTCGCTGGGAAAATCAGAGAAGGCAAAATCA  
GGCGAATCCATACCGTTACTCTGATGAATTGAATGAAATTTACGAGGATGTTAACTTAAAGGATTA  
CCATCGACCTTCTGTTGAAGAAATCTTGAGAACCCTTTAATAGCAGATTTGGTTGCAGACGAGCAAAGA  
AGAAATCTTGAGAGAAGAGGGCGACAATTAGGAGAGCCAGAAAAATCGCAGGATTCAGCCCTGTATTGA  
GTGAGCTGAAACTGAAGGAAATTCAGTTACAGGAGCGAGAGCTCTCAAAGCAAGAGAAGAAAGATT  
GGAGCAGAAAGAACAGGAGCTTTGTGTTGTTGAGAGACTAGCAGAGGACAAAAGCTGAGCAGAAAAAT  
CTGTTGAAGAACTACAGCTTGCTAAAGGAACGGAAGTTCTGTCTCTGGCAAGTAATCCAGAGTCTCACT  
TTGTTGCCAGGCTGGAATGCAGTGGTGTGATCACAGCTCAATG

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233949 representing NM\_001204182  
Red=Cloning site Green=Tags(s)

MPSRAEDYEVLTYTIGTSYGRCQKIRRKSDGKILVWKELDYGSMTAEKQMLVSEVNLLRELKHPNIVRY  
 YDRIIDRTNTLLYIVMEYCEGGDLASVITKGTKERQYLDEEFVLRVMTQLTLALKECHRRSDGGHTVLHR  
 DLKPANVFLDGKQNVKLGDFGLARILNHDTSFAKTFVGTPTYMSPEQMNRMSYNEKSDIWSLGCLLYELC  
 ALMPPFTAFSQQELAGKIREGKFRIRPYRYSDLENEIITRMLNLKDYHRPSVEEILENPLIADLVADEQR  
 RNLERRGRQLGEPEKSQDSSPVLSELKLEIQLQERERALKAREERLEQKEQELCVRERLAEDKLARAEN  
 LLKNYSLLKERKFLSLASNPESHFVAQAGMQWCDHSSM

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001204182

**ORF Size:** 1164 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\\_001204182.1](#), [NP\\_001191111.1](#)

**RefSeq Size:** 1750 bp

**RefSeq ORF:** 1167 bp

**Locus ID:** 4751

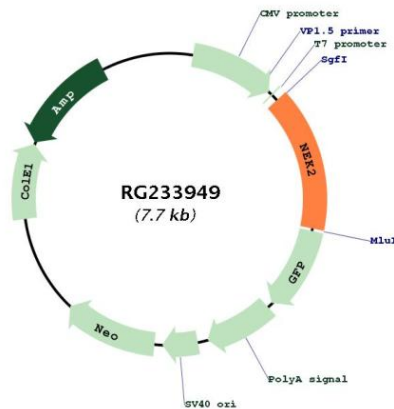
**UniProt ID:** [P51955](#)

**Cytogenetics:** 1q32.3

**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 RG233949