

## Product datasheet for MR217007

### Nek6 (NM\_021606) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nek6 (NM_021606) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nek6
Synonyms:	1300007C09Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR217007 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGGACAGCCAGCCACATGCCTCATGGAGGGAGCCAAACCACCTCTGCCATGCACTGGGGCCTG  
CACCCCTCCAGACCCACAGAGGCTCCCAAACACCCTGTCTTTTCGCTGCTCACTGGCAGACTTCCAAAT  
TGAGAAGAAGATTGGCCGAGGACAGTTCAGTGAGGTTTACAAGGCCACTTGCCTGCTGGACAGGAAGACA  
GTGGCTCTGAAGAAGGTGCAGATCTTTGAGATGATGGATGCCAAAGCCAGGCAAGACTGTGTCAAGGAAA  
TTGGTCTCCTAAAGCAACTGAACCATCCGAATATCATCAAGTATCTGGACTCCTTCATCGAAGACAATGA  
GCTGAACATTGTGCTGGAGTTGGCTGACGCGGGTACCTCTCACAGATGATCAAGTATTTCAAGAAGCAG  
AAGCGGCTTATCCCTGAGAGGACCGTGTGGAAGTACTTCGTGCAGCTGTGCAGCGCTGTGGAGCAGATGC  
ACTCCCGACGTGTGATGCACCGAGACATCAAGCCCGCAACGTGTTTCATCACAGCTACGGGCATTGTGAA  
GCTTGGTGACCTCGGCCTGGGCCGCTTCTTCAGCTCGGAGACCACTGCGGCCCACTCACTAGTGGGAACA  
CCATACTACATGTCACCCGAGAGAATCCATGAGAATGGCTACAACCTCAAGTCAGACATCTGGTCCCTAG  
GCTGCCTGCTGTATGAGATGGCAGCTCTCCAGAGCCCTTCTATGGAGATAAGATGAATCTTCTCCCT  
CTGCCAAAAGATTGAGCAGTGTGACTACCCGCCCTCTCCCGGGAGAGCACTACTCTGAGAAGCTTCGGGAA  
CTGGTCAGTATGTATCTACCTGACCCTGACCACCGACCTGACATTGTATATGTGCACCAGGTGGCTA  
GACAGATGCACGTCTGGACATCCAGCACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR217007 protein sequence  
Red=Cloning site Green=Tags(s)

MAGQPSHMPHGGSPNHLCHALGPAPPDPQRLPNTLSFRCSLADFQIEKKIGRGQFSEVYKATCLLDRKT  
 VALKKVQIFEMMDAKARQDCVKEIGLLKQLNHPNI IKYLDSFIEDNELNIVLELADAGDL SQMIKYFKKQ  
 KRLIPERTVWKYFVQLCSAVEHMH SRRVMHRDIKPANVFI TATGIVKLGDLGLGRFFSSETTAHSLVGT  
 PYYMSPERIHENGYNFKSDIWSLGCLL YEMAALQSPFYGDKMNLFSLCQKIEQCDY PPLPGEHYSEKLRE  
 LVSMCIYPDPDHRPDIVYVHQVARQMHWTSST

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_021606

**ORF Size:** 942 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\\_021606.3](#), [NP\\_067619.1](#)

**RefSeq Size:** 3168 bp

**RefSeq ORF:** 942 bp

**Locus ID:** 59126

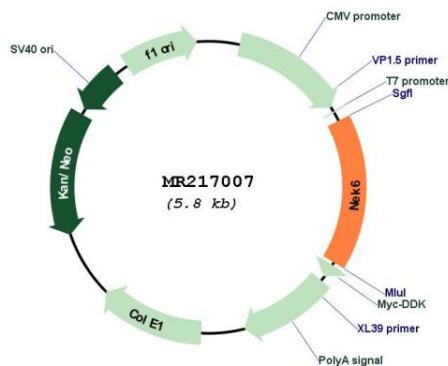
**UniProt ID:** [Q9ES70](#)

**Cytogenetics:** 2 24.41 cM

**MW:** 35.7 kDa

**Gene Summary:** Protein kinase which plays an important role in mitotic cell cycle progression. Required for chromosome segregation at metaphase-anaphase transition, robust mitotic spindle formation and cytokinesis. Phosphorylates ATF4, CIR1, PTN, RAD26L, RBBP6, RPS7, TRIP4, RPS6KB1 and histones H1 and H3. Phosphorylates KIF11 to promote mitotic spindle formation. Involved in G2/M phase cell cycle arrest induced by DNA damage. Inhibition of activity results in apoptosis. May contribute to tumorigenesis by suppressing p53/TP53-induced cancer cell senescence (By similarity). Phosphorylates STAT3.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR217007