

Product datasheet for **MC203803**

Nek2 (NM_010892) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nek2 (NM_010892) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nek2
Synonyms:	AA617254; C77054
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC011316
 CGAGGGGCTCGGGTTTCGGCGCGGTTGGCCTGCAGCGGGCAGCCTGGGCTCCGAGCGGC GCGGTGGTGT
 GGTGGCCAGGGTGGCCGCTCGCCATGCCGTCCCGGGTGGAGGACTACGAGGTGCTGCACAGCATCGGCAC
 CGGCTCTACGGCCGCTGTCAGAAGATTCGGAGGAAGAGCGACGGCAAGATCCTGGTGTGAAAGAGCTT
 GACTATGGCTCCATGACGGAGGTGGAGAAGCAGATGCTTGTGTCTGAAGTGAAGTGTCTCGGGAGCTGA
 AACATCCAACATCGTCCGTTACTATGATCGCATTATTGACCGAACCAACAACCCTGTACATCGTAAT
 GGAATACTGTGAGGGAGGGGACCTGGCTAGTGTCAATTTCAAAGGGGACCAAGGATAGACAGTACTTGGAA
 GAAGAGTTTGTCCCTTCGAGTGATGACTCAGTTGACGCTGGCCCTGAAAGAGTGTACAGAAGGAGCGATG
 GTGCCACACTGTGCTTACC GGACCTGAAGCCAGCCAATGTCTTCTTGACAGCAAACAATGTCAA
 GCTGGGGGACTTTGGACTAGCTAGAATATTAATCACGACACGAGTTTTGCAAAAACGTTTGTGGCACA
 CCCTATTACATGTCTCCTGAACAGATGAGCTGCTTATCCAGTAACGAGAAGTCGGACATCTGGTCTTTGG
 GCTGCCTGCTGTATGAGCTGTGTGCACTAATGCCTCCCTTACAGCTTTCACCAAAAAGAGCTAGCTGG
 GAAAATCAGGGAAGGGAGGTTCCAGGCGCATCCCCTACCGTACTCTGATGGCTTGAATGACCTCATCACT
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 ACATGGTTGCAGAAGAGCAAAGGAGAAAATCTGGAGAGGAGAGGACGGCGCTCAGGCGAGCCTTCGAAGCT
 GCCGGACTCCAGCCCTGTGCTGAGCGAGCTCAAGTTGAAGGAAAGGCAACTGCAGGATCGAGAGCAAGCA
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 GGCTGGTGGCCAGAACTTGATCTTCCATCCTCAGCCATGAAGAAGAAGGTTCAATTTCCACGGGAAAGC
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 GAGCTCGTGGCATTGCTTGTGGTCTGCAAAATGGATGTGTGTGCTGCTTCCCTAATGTCCCTGTGTGAAAA
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 GCACTATAGATACTATAGATCTTAGGAGAAAATAATGTTAGGGAAGAATATTTAACCTGGAGGGCTCAG
 AGAGGCTCACACGCTGAGTGATACCGCCTTCACTGTGGTTTCCAAGTGAAGCCTCAGCGGGTCCATGACC
 TCACTGCTAACGGGATGCGTATGGCAGGACCCACAGGTTGCATGTCAGAGGTGTGTAATGTTACAGGG
 AGAGACCCAGCCTCTGGCCTGACCTCCTGATGAGAAGCCACTCACCAGCATTCCCATTCCAGGACGCTCA
 CTGTGCCAGTTAACATCAGATTAGAAGTGAGGGGAGGGGAGGGCGAGGGCTGAAGCTTTTAGGATTTGC
 CTTAGGGAAGCGGTGCCATGGCCCTCAGCACGCTGCTGTCTGATCCTAGGCAGGCACCTGGGACAGG
 AGGCTCTGGGAGCCCTGAGAGCCCCCTCCTGCTGTGTGCAGGGCCTGTCCCCGTGTCTGTATCTGACC
 TCTAGGTCAGTTGATGACATTAGTTAAGTGTCTTGTACCTACAAGTATAAGCCAAAAGGTCGGAATGC
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 GAGAGGGGAGGTGAGAAGCATGTAATGCCATTCGTTTTCATGGCTAAACACACAGACTCCTTGCATTTTAA
 AATTCTGTGCCTTACTTCTGGAGCTATAATAACGTGCTTGGGTGTGACTTGGCCGAGGTTGGCTTTC
 GCAATGCTTTATGTAACCTCTGCTGTTGGCACTTGCAGCTGTAAGAAGCTGTGCGAGGGATTACTTACTTA
 CGGTTATAGCATCTGGGCTCTTGCAGCTGCAATGCCTGGGATCTTTTGCAACTCTGACTTTTTAGTA
 GCAGCTTGAATGTTAAAATATGGTGAGCCTCTTCTGTGAAGGAAGGGCCTGACAATCTGCCAGCAGG
 GAAAAGACTGGAACTCAGTGCAGTGGTTTTCTGCCTTCCCTTCTCCTTTGGTCTATAGTGATACTGA
 CAGCAATACAAAGTAAAATCTGTGTATATAAAAATCCTAAGTATGAGGTCTTAAATGTTCTGGAATTTTA
 GAAAAAATTAATTGGATGCAATTGTTTATAATTAACAAGTCATCTTATTATAAATTTTCCAATATAAT
 ATAAATCTATTTGTGGAATTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI
ACCN: NM_010892
Insert Size: 1332 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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:	BC011316 , AAH11316
RefSeq Size:	3131 bp
RefSeq ORF:	1332 bp
Locus ID:	18005
UniProt ID:	O35942
Cytogenetics:	1 96.94 cM
Gene Summary:	Protein kinase which is involved in the control of centrosome separation and bipolar spindle formation in mitotic cells and chromatin condensation in meiotic cells. Regulates centrosome separation (essential for the formation of bipolar spindles and high-fidelity chromosome separation) by phosphorylating centrosomal proteins such as CROCC, CEP250 and NINL, resulting in their displacement from the centrosomes. Regulates kinetochore microtubule attachment stability in mitosis via phosphorylation of NDC80. Involved in regulation of mitotic checkpoint protein complex via phosphorylation of CDC20 and MAD2L1. Plays an active role in chromatin condensation during the first meiotic division through phosphorylation of HMGA2. Phosphorylates: PPP1CC; SGO1; NECAB3 and NPM1. Essential for localization of MAD2L1 to kinetochore and MAPK1 and NPM1 to the centrosome. Phosphorylates CEP68 and CNTLN directly or indirectly (By similarity). NEK2-mediated phosphorylation of CEP68 promotes CEP68 dissociation from the centrosome and its degradation at the onset of mitosis (By similarity). Phosphorylates and activates NEK11 in G1/S-arrested cells. Involved in the regulation of centrosome disjunction (By similarity).[UniProtKB/Swiss-Prot Function]