OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC223912

Nek1 (NM_175089) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nek1 (NM_175089) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nek1
Synonyms:	D8Ertd790e; kat
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

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>MC223912 representing NM_175089
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGAAGTATGTGAGACTGCAGAAGATTGGAGAAGGTTCATTTGGAAAAGCTGTTCTTGTTAAATCGA
CAGAGGATGGCAGACATTATGTCATCAAGGAAATTAACATCTCAAGAATGTCTGATAAAGAAAGGCAAGA
ATCAAGGAGAGAAGTTGCTGTATTGGCAAACATGAAGCATCCAAATATTGTCCAATATAAAGAATCATTT
GAAGAAAATGGCTCTCTCTACATAGTAATGGATTACTGTGAAGGAGGTGATTTGTTTAAACGAATAAATG
CTCAGAAAGGCGCTCTGTTTCAAGAAGACCAGATTTTGGACTGGTTTGTGCAGATATGTTTGGCTCTGAA
GCATGTACATGATAGAAAAATTCTTCACCGAGACATAAAGTCACAGAACATATTTCTAACCAAAGATGGG
ACAGTGCAGCTTGGAGATTTTGGAATTGCTCGAGTTCTTAATAGTACTGTAGAGCTGGCTCGAACTTGCA
TAGGCACTCCATACTACTTGTCACCTGAAATCTGTGAAAACAAGCCTTATAACAATAAAAGTGACATTTG
GGCTTTGGGCTGTGTCCTTTATGAGTTGTGTACACTTAAACATGCATTTGAAGCTGGAAACATGAAAAAC
CTGGTACTGAAGATAATCTCCGGATCCTTTCCTCCAGTGTCTCCACATTACTCCTATGATCTCCGCAGCT
TGCTGTCTCAGTTATTTAAAAGAAATCCTAGGGATAGACCATCAGTCAACTCCATATTGGAGAAAGGTTT
TATAGCTAAACGAATCGAAAAGTTTCTCTCCCCTCAGCTTATTGCAGAAGAATTTTGTCTAAAAACACTT
TCAAAGTTTGGACCACAGCCTCTCCCAGGTAAAAGACCAGCATCAGGACAAGGTGTCAGTTCTTTTGTCC
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GGAGAGGATAAATAGGGCCAGGGAACAAGGATGGAGGAATGTTTTAAGGGCTGGTGGAAGCGGTGAAGTA
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ATTACCATGCCATTTTTGACCAAATGCAGCGGCTAAGAGCAGAAGATAATGAAGCAAGATGGAAGGGGGG
AATCTATGGTCGATGGCTCCCAGAAAGGCAAAAAGGACACTTAGCTGTAGAGAGAGCCAACCAAGTGGAA
GAATTCCTACAGCGTAAACGAGAAGCTATGCAGAATAAAGCCCGAGCCGAAGGACACGTGGTTTATTTGG
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CAAGACTGAGGCAAATAAGACTACAAAATTTTAATGAGCGCCAACAGATTAAAGCCAAACTTCGTGGTGA
GAATAAAGAAGCTGATGGTACCAAAGGACAAGAAGCAACTGAAGAGACTGACATGAGGCTCAAAAAGATG
GAGTCACTTAAGGCGCAAACAAATGCACGTGCTGCTGTACTAAAAGAACAGCTGGAGCGAAAAAGAAAGG
AAGCTTATGAAAGAGAAAAGAAAGTATGGGAAGAACATTTGGTGGCGAGGGTAAAAAGCTCAGATGTTCC
TCTGCCTTTGGAACTTCTTGAAACAGGTGGTTCTCCATCAAAGCAGCAGGTGAAGCCTGTCATTTCTGTG
ACTTCAGCTTTGAAAGAAGTGGGCCTGGATGGAAGTTTAACTGATACCCAGGAAGAAGAAATGGAAAAGA
GTAACAGTGCTATTTCAAGTAAGCGAGAAATCCTGCGTAGGCTAAATGAAAATCTTAAAGCTCAAGAGGA
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ACAGAAAATGCCATTTCCTCTGATCGCAAGAAGTGGGAGATGGGAGGTCAGCTTGTGATTCCTCTCGATG
CAGTGACACTGGATACATCCTTCTCTGCAACCGAAAAACATACTGTGGGAGAGGTTATTAAATTAGATTC
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TGTTGATTCTACTGAAACGAAAAGTCCAAAGTTTACTGAGGTGTCTCCACAAATGTCAGAAGGAAATGTG
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CACCTGTTCTTAATGATGTGTGGACTAGAGAGAAGGAAGCAGCTAAGGAAACTGAGTTGGAAGATAAGGT
TGCTGTGCAGCAGAGTGAAGTTTGTGAAGATAGAATTCCAGGGAACGTGGACCAATCCTGTAAGGATCAG
AGAGATCCTGCAGTAGACGATTCTCCGCAGTCTGGCTGTGATGTAGAGAAGTCAGTACAGCCAGAATCGA
TTTTCCAGAAAGTGGTTCATTCTAAGGACTTGAACTTAGTTCAGGCAGTTCATTGCTCACCAGAAGAACC
AATTCCAATTCGATCTCACTCTGATTCTCCACCAAAAACTAAGAGCAAGAATTCCTTACTGATTGGACTT
TCAACTGGTCTGTTTGATGCAAACAATCCAAAGATGCTGAGGACCTGCTCACTTCCAGATCTTTCCAAGC
TGTTCAGAACCCTAATGGACGTTCCCACTGTGGGGGACGTTCATCAAGACAGTCTTGAAATCGATGAGCT
GGAAGATGAACCAATTAAAGAAGGGCCTTCTGATTCCGAAGACACTGTATTTGAAGAAACTGACACAGAT
TTACAAGAGCTTCAGGCCTCAATGGAGCAGCTGCTTAGGGAGCAACCAGGTGACGAATACAGTGAGGAGG
AAGAGTCTGTTTTAAAAAGCAGCGATGTGGAGCAGACAGCAAGAGGGACAGATGCCCCAGACGAGGAGGA
CAACCCCAGCAGCGAAAGCGCCCTGAACGAGGAATGGCACTCAGATAATAGTGACGCTGAGACCACTAGT
GAATGTGAATATGACAGTGTCTTTAACCATTTAGAGGAACTAAGACTTCACTTGGAGCAAGAAATGGGCT
TTGAAAAGTTCTTTGAGGTTTATGAGAAAGTAAAGGCTATTCATGAGGATGAAGATGAAAATATTGAAAT
TTGTTCAACAATAGTTGAGAATATTTTGGGCAATGAGCACCAGCATCTCTATGCCAAGATTCTGCATTTA
GTCATGGCAGATGGAGCCTATCAGGAAGATAATGATGAATAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_175089

Insert Size: 3612 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).

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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_175089.4, NP_780298.2
RefSeq Size:	5419 bp
RefSeq ORF:	3612 bp
Locus ID:	18004
UniProt ID:	P51954
Cytogenetics:	8 30.91 cM
Gene Summary:	Phosphorylates serines and threonines, but also appears to possess tyrosine kinase activity (PubMed:1382974). Involved in DNA damage checkpoint control and for proper DNA damage repair (PubMed:18843199). In response to injury that includes DNA damage, NEK1 phosphorylates VDAC1 to limit mitochondrial cell death (By similarity). May be implicated in the control of meiosis (PubMed:1382974). Involved in cilium assembly (By similarity). [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (3) lacks two alternate in-frame exons, compared to variant 1. The encoded protein (isoform 3) is shorter, compared to isoform 1.

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