

## Product datasheet for MR231748

### Nek1 (NM\_001293637) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nek1 (NM_001293637) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nek1
Synonyms:	D8Ertd790e; kat
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR231748 representing NM_001293637 Red=Cloning site Blue=ORF Green=Tags(s)

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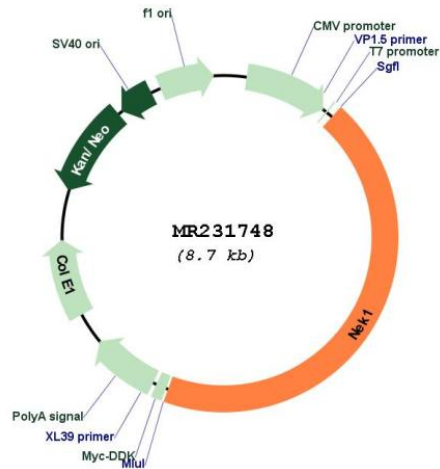
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## Plasmid Map:



ACCN: NM\_001293637

ORF Size: 3825 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\\_001293637.1](#), [NP\\_001280566.1](#)

RefSeq Size: 5635 bp

RefSeq ORF: 3828 bp

Locus ID: 18004

UniProt ID: [P51954](#)

Cytogenetics: 8 30.91 cM

**MW:** 144.7 kDa

**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]