

## Product datasheet for **RR200141**

### Nit1 (NM\_182668) Rat Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | Nit1 (NM_182668) Rat Tagged ORF Clone                                       |
| Tag:                      | Myc-DDK                                                                     |
| Symbol:                   | Nit1                                                                        |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-Entry (PS100001)                                                      |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                                        |
| ORF Nucleotide Sequence:  | >RR200141 representing NM_182668<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGGGCTTCATCACCAGGCCTCCTCATCAACTCCTGTCCCTTCTGTGTACCGGATACCGATTACCTC  
 AAATCTCAGTACTTTGTACTCAGCCCAGGCCAGAGCCATGGCAGAGTCCTCATCGACTTCCTGGGAGCT  
 GCCCCTGGTGGCTGTGTGCCAGGTAACATCAACACCAACAAGCAAGAGAAGCTTTAAACGTGTGCTGAG  
 CTGGTTCAAGAGGCTACCAGACTGGGCGCTTGCCTGGCCTTTCTGCCTGAGGCATTTGACTTTATTGCAC  
 GAAATCCTGCCGAGACATTACTCCTGTCCGAACCACTGGATGGGGACCTTTGGGACAATATAGCCAGCT  
 TGCCAGGGAATGTGGAATCTGGCTGTCTTGGGTGGTTTCCACGAGCGTGGCCAAGACTGGGAGCAGACT  
 CAGAAAATCTACAATTGTCATGTGCTTCTGAACAGCAAGGGATCAGTAGTGGCCAGTTACAGGAAGACAC  
 ATCTATGTGATGTAGAGATCCCAGGTGAGGGGCTATGAGAGAAAGCAACTATACCATGCCTGGATACGC  
 TCTTGAACCACCTGTCAAGACACCAGCAGGCAAGGTTGGTCTAGCAATCTGTTATGACATGCGGTTCCCT  
 GAACTTTCTGAAATTGGCTCAAGCTGGGGCAGAAATACTTACTTATCCTTCAGCCTTTGGATCTGTTA  
 CCGGCCAGCCACTGGGAGGTGCTGCTGCGGGCCGCGCCATTGAGTCTCAGTGCTACGTGATAGCAGC  
 AGCACAGTGTGGACGCCACCATGAGACAAGAGCAAGTTACGGCCACAGCATGGTGGTTGACCCCTGGGGC  
 ACAGTGGTGGCCAGCTGTTCCGAGGGACCAGGCCTTTGCCTTGCTCGAATTGATCTCCACTTTCTGCAAC  
 AGATGCGCCAACACTTGCTGTGTTCCAGCATCGCAGACCTGACCTTTATGGCAGTCTCCTGCCACTCTC  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


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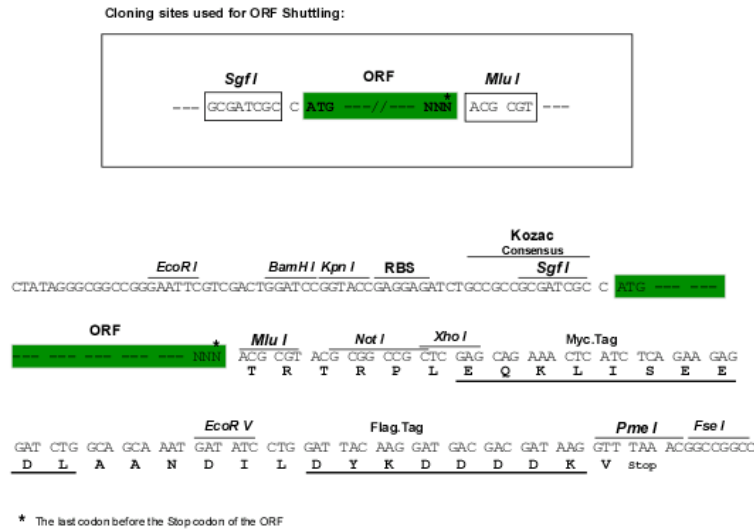
**Protein Sequence:** >RR200141 representing NM\_182668  
 Red=Cloning site Green=Tags(s)

MLGFITRPPHQLLSLLCTGYRLPQISVLCTQPRPMAESSSTSWELPLVAVCQVTSTPNKQENFKTCAE  
 LVQEATRLGACLAFLPEAFDFIARNPAETLLLSEPLDGDLLGQYSQLARECGIWLSLGGFHERGQDWEQT  
 QKIYNCHVLLNSKGSVVASYRKTHLCDVEIPGQGMRESNYTMPGYALEPPVKTPAGKVGLAICYDMRFP  
 ELSLKLAQAGAEILTYPSAFGSVTGPAHWEVLLRARAIESQCYVIAAAQCGRHHETRASYGHSMVVDPWG  
 TVVASCSEGPLCLARIDLHFLQMQRHLPVFQHRRPDLYGSLLPLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_182668

**ORF Size:** 981 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\\_182668.2](#), [NP\\_872609.2](#)

**RefSeq Size:** 1391 bp

**RefSeq ORF:** 984 bp

**Locus ID:** 289222

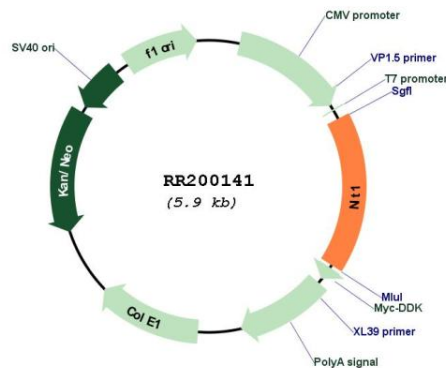
**UniProt ID:** [Q7TQ94](#)

**Cytogenetics:** 13q24

**MW:** 36.1 kDa

**Gene Summary:** The protein encoded by this gene is a member of the nitrilase enzyme superfamily. Nitrilases are nonpeptidic C-N hydrolases. In mammals, nitrilases form small molecule C-N bonds such as acid amides, carbamates and ureas. Nit1-deficient mice display phenotypes including increased cell proliferation, resistance to DNA damage, and an increased number of N-nitrosomethylbenzylamine-induced murine forestomach tumors, suggesting a tumor suppressor function. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2015]

## Product images:



Circular map for RR200141