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Product datasheet for RR200142

Nit1 (NM_001082580) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nit1 (NM_001082580) 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:

>RR200142 representing NM_001082580
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGAGTCCTCATCGACTTCCTGGGAGCTGCCCCTGGTGGCTGTGTGCCAGGTAACATCAACACCAA
ACAAGCAAGAGAACTTTAAAACGTGTGCTGAGCTGGTTCAAGAGGCTACCAGACTGGGCGCTTGCCTGGC
CTTTCTGCCTGAGGCATTTGACTTTATTGCACGAAATCCTGCCGAGACATTACTCCTGTCCGAACCACTG
GATGGGGACCTTTTGGGACAATATAGCCAGCTTGCCAGGGAATGTGGAATCTGGCTGTCCTTGGGTGGTT
TCCACGAGCGTGGCCAAGACTGGGAGCAGACTCAGAAAATCTACAATTGTCATGTGCTTCTGAACAGCAA
GGGATCAGTAGTGGCCAGTTACAGGAAGACACATCTATGTGATGTAGAGATCCCAGGTCAGGGGCCTATG
AGAGAAAGCAACTATACCATGCCTGGATACGCTCTTGAACCACCTGTCAAGACACCAGCAGGCAAGGTTG
GTCTAGCAATCTGTTATGACATGCGGTTCCCTGAACTTTCTCTGAAATTGGCTCAAGCTGGGGCAGAAAT
ACTTACTTATCCTTCAGCCTTTGGATCTGTTACCGGCCCAGCCCACTGGGAGGTGCTGCTGCGGGCCCGC
GCCATTGAGTCTCAGTGCTACGTGATAGCAGCAGCACAGTGTGGACGCCACCATGAGACAAGAGCAAGTT
ACGGCCACAGCATGGTGGTTGACCCCTGGGGCACAGTGGTGGCCAGCTGTTCCGAGGGACCAGGCCTTTG
CCTTGCTCGAATTGATCTCCACTTTCTGCAACAGATGCGCCAACACTTGCCTGTGTTCCAGCATCGCAGA
CCTGACCTTTATGGCAGTCTCCTGCCACTCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

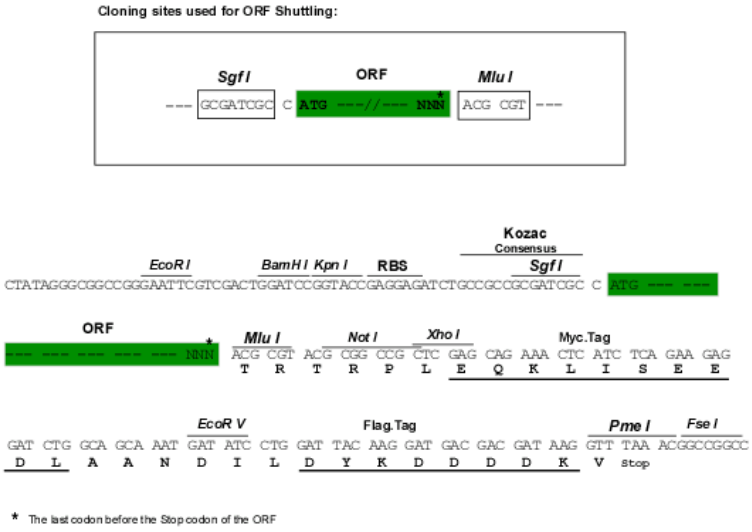
>RR200142 representing NM_001082580
Red=Cloning site Green=Tags(s)

MAESSSTSWELPLVAVCQVTSTPNKQENFKTCAELVQEATRLGACLAFLPEAFDFIARNPAETLLLSEPL
DGDLLGQYSQLARECGIWLSLGGFHERGQDWEQTQKIYNCHVLLNSKGSVVASYRKTHLCDVEIPGQGPM
RESNYTMPGYALEPPVKTPAGKVGLAICYDMRFPELSLKLAQAGAEILTYPSAFGSVTGPAHWEVLLRAR
AIESQCYVIAAAQCGRHHETRASYGHSMVVDPWGTVVASCSEGPGLCLARIDLHFLQQMRQHLPVFQHRR
PDLYGSLLPLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001082580

ORF Size: 873 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_001082580.1, NP_001076049.1

RefSeq Size: 1423 bp

RefSeq ORF: 876 bp

Locus ID: 289222

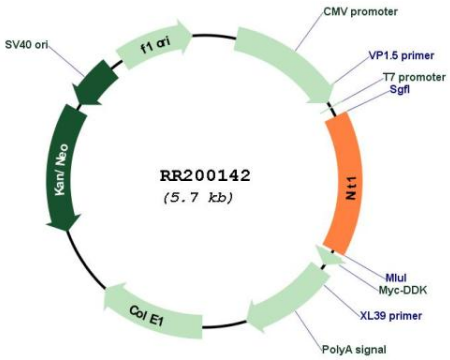
UniProt ID: Q7TQ94

Cytogenetics: 13q24

MW: 32 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 RR200142