

Product datasheet for RC211519

NIT1 (NM_005600) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NIT1 (NM_005600) Human 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:	>RC211519 representing NM_005600 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGGGCTTCATCACCAGGCCTCCTCACAGATTCCTGTCCCTTCTGTGTCTGGACTCCGGATACCTC
AACTCTCAGTACTTTGTGCTCAGCCCAGGCCAGGCCATGGCTATCTCCTCTTCTCCTGCGAAGTCC
CCTGGTGGCTGTGTGCCAGGTAACATCGACGCCAGACAAGCAACAGAACCTTTAAACATGTGCTGAGCTG
GTTGAGAGGCTGCCAGACTGGGTGCCTGCCTGGCTTTCTGCCTGAGGCATTTGACTTCATTGACCGGG
ACCTGCAGAGACGCTACACCTGTCTGAACCACTGGGTGGAAACTTTTGAAGAATAACACCCAGCTTG
CAGGGAATGTGGACTCTGGCTGTCTTGGGTGGTTTCCATGAGCGTGGCCAAGACTGGGAGCAGACTCAG
AAAATCTACAATTGTCACGTGCTGCTGAACAGCAAAGGGCAGTAGTGGCCACTTACAGGAAGACACATC
TGTGTGACGTAGAGATCCAGGGCAGGGCCTATGTGTGAAAGCAACTCTACCATGCCTGGGCCAGTCT
TGAGTCACCTGTCAGCACACCAGCAGGCAAGATTGGTCTAGCTGTCTGCTATGACATGCGGTTCCCTGAA
CTCTCTTGGCATTGGCTCAAGCTGGAGCAGAGATACTTACCTATCCTTCAGCTTTTGGATCCATTACAG
GCCAGCCACTGGGAGGTGTTGCTGCGGGCCCGTCTATCGAAACCCAGTGCTATGTAGTGGCAGCAGC
ACAGTGTGGACGCCACCATGAGAAGAGAGCAAGTTATGGCCACAGCATGGTGGTAGACCCCTGGGAACA
GTGGTGGCCCGTCTCTGAGGGGCCAGGCCTCTGCCTTGCCGAATAGACCTCAACTATCTGCGACAGT
TGCGCCGACACCTGCCTGTGTTCCAGCACCGCAGGCCTGACCTCTATGGCAATCTGGGTACCCACTGTC
T

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC211519 representing NM_005600
Red=Cloning site Green=Tags(s)

MLGFITRPPHRFLSLLCPGLRIPQLSVLCAQPRPRAMAISSSSCELPVAVCQVTSTPDKQQNFKTC AEL
 VREAARLGACLAFLPEAFDFIARDPAETLHLSEPLGGKLL E EYTLARECGLWLSLGGFHERGQDWEQTQ
 KIYNCHVLLNSKGAVVATYRKTHLCDVEIPGQGP MCE SNSTMPGPSLESPVSTPAGKIGLAVCYDMRFPE
 LSLALAQAGAEILTYPSAFGSITGPAHWEVLLRARAIETQCYVVA A AQCGRHHEKRASYGHSMVVDPWGT
 VVARCSEGPGLCLARIDLNYLRQLRRHLPVFQHRRPDL YGNLGHPLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6036_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_005600

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_005600.3](#)

RefSeq Size: 1385 bp

RefSeq ORF: 984 bp

Locus ID: 4817

UniProt ID: [Q86X76](#)

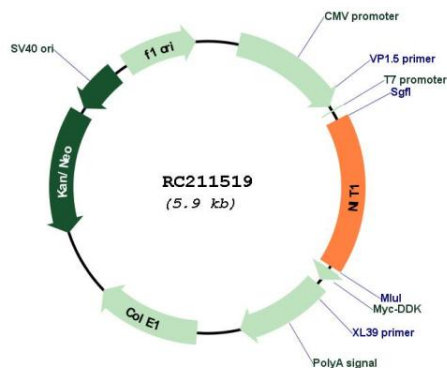
Cytogenetics: 1q23.3

Domains: CN_hydrolase

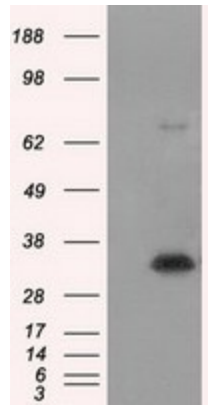
MW: 35.7 kDa

Gene Summary: This gene encodes a member of the nitrilase protein family with homology to bacterial and plant nitrilases, enzymes that cleave nitriles and organic amides to the corresponding carboxylic acids plus ammonia. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]

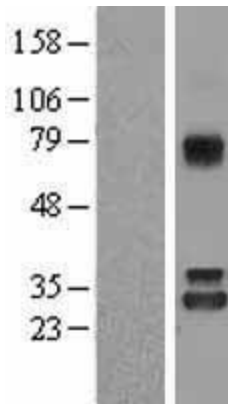
Product images:



Circular map for RC211519



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NIT1 (Cat# RC211519, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NIT1 (Cat# [TA501084]). Positive lysates [LY401717] (100ug) and [LC401717] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401717]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211519 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NIT1 protein (Cat# [TP311519]). The protein was produced from HEK293T cells transfected with NIT1 cDNA clone (Cat# RC211519) using MegaTran 2.0 (Cat# [TT210002]).