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Product datasheet for MR204373

Nmral1 (NM_026393) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nmral1 (NM_026393) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nmral1
Synonyms:	1110025F24Rik; AI256624
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR204373 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGATAGGAAACTGGTGGTGGTTTTTGGAGCCACAGGTGCGCAAGGTGGCTCTGTGGCCCGTGCAT
TGCTAGAAGATGGGACATTCAGGATTCGAGTGGTAACAAGAAACCCTGAGCAGAGGGCAGCCAAAGAGCT
GAAGCAGCAAGGTGCTGAGGTAGTGCGAGGAGACCAGGACGATGCAGCTAGCATGGAGCTGGCCTTGGCT
GGAGCCCATGCCACCTTCATTGTGACCAATTACTGGGAGACGTGCAGCCAGGACCGAGAAGTGCAGCAGC
CCCACCAGTGGGACCAAGTATTCAAACAAGGCAAGCTTCTAGCCGATCTAGCCAAACGCTTGGGCCTCCA
TTATGTAGTGTACAGTGGCCTGGAGAACATCAGGAAGCTGACGGCTGGGAAGCTGGCCGCAGGACACTTT
GATGGCAAAGGGGAGGTGGAGGAATACTTCCGAGACATCGGTGTTCCCATGACCAGTGTGCGGCTGCCTT
GCTATTTCGAGAATCTCCTTTCCTATTTCCTGCCCCAGAAAGCTGCAGATGGAAAAAGCTTCTTGCTGGA
CTTGCCCATGGGTGACGTCCCCATGGATGGAATGTCTGTGAGTGACCTGGGCCCCGTGGTGCTCAGCTTG
CTGAAGAAGCCAGAAGAGTACGTAGGGCAGAACATCGGGCTCAGTACCTGCAGGCACACCGCAGAGGAGT
ATGCTGCCTTGCTTAGCAAGCACACTGGCAAGGCTGTACATCATGCCAAGACAACTCCTGAGGATTACGA
GAAACTTGGTTTCCAGGGGGCTCAAGACTTGGCCAACATGTTCCGTTTCTACACCCTGAAACCTGATCGG
AACATTCATCTGACCCTGCGACTCAACCCCAAAGCCCAGACACTGGACCAGTGGCTGGAGCAGCACAAAG
GGGACTTTGCACAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

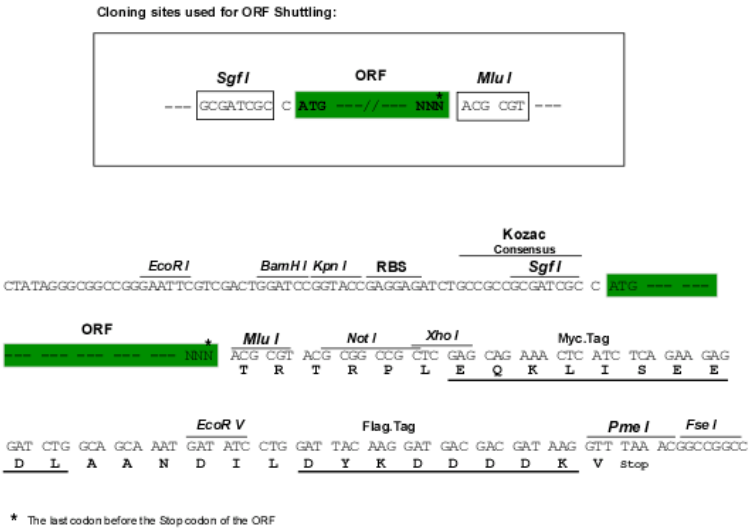
>MR204373 protein sequence
Red=Cloning site Green=Tags(s)

MADRKLVVVFGATGAQGGSVARALLEDGTFRIRVVTRNPEQRAAKELKQQGAEVVRGDQDDAASMELALA
GAHATFIVTNYWETCSQDREVQQPHQWDQVFKQGKLLADLAKRLGLHYVVYSGLENIRKLTAGKLAAGHF
DGKGEVEEYFRDIGVPMTSVRLPCYFENLLSYFLPQKAADGKSFLLDLPMGDVPMDGMSVSDLGPVVLSL
LKKPEEYVGQNIGLSTCRHTAEEYAALLSKHTGKAVHHAKTTPEDYEKLGFQGAQDLANMFRFYTLKPDR
NIHLTLRLNPKAQTLDQWLEQHKGDFAQL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_026393

ORF Size: 927 bp

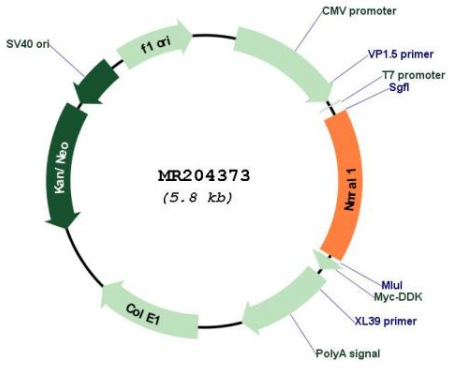
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_026393.2
RefSeq Size:	1483 bp
RefSeq ORF:	930 bp
Locus ID:	67824
UniProt ID:	Q8K2T1
Cytogenetics:	16 2.46 cM
MW:	34.4 kDa
Gene Summary:	Redox sensor protein. Undergoes restructuring and subcellular redistribution in response to changes in intracellular NADPH/NADP(+) levels. At low NADPH concentrations the protein is found mainly as a monomer, and binds argininosuccinate synthase (ASS1), the enzyme involved in nitric oxide synthesis. Association with ASS1 impairs its activity and reduces the production of nitric oxide, which subsecuently prevents apoptosis. Under normal NADPH concentrations, the protein is found as a dimer and hides the binding site for ASS1. The homodimer binds one molecule of NADPH. Has higher affinity for NADPH than for NADP(+). Binding to NADPH is necessary to form a stable dimer (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204373