

## Product datasheet for **MC226889**

### Nmral1 (NM\_001290761) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nmral1 (NM\_001290761) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Nmral1  
**Synonyms:** 1110025F24Rik; AI256624  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC226889 representing NM\_001290761  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGATAGGAACTGGTGGTGGTTTTGGAGCCACAGGTGCGCAAGGTGGCTCTGTGGCCCGTGCAT  
TGCTAGAAGATGGGACATTCAGGATTCGAGTGGTAAACAAGAAACCCTGAGCAGAGGGCAGCCAAAGAGCT  
GAAGCAGCAAGGTGCTGAGGTAGTGCAGGAGACCAGGACGATGCAGCTAGCATGGAGCTGGCCTTGCT  
GGAGCCATGCCACCTTCATTGTGACCAATTACTGGGAGACGTGCAGCCAGGACCAGAAAGTGCAGCAGG  
GCAAGCTTCTAGCCGATCTAGCCAAACGCTTGGGCCTCCATTATGTAGTGTACAGTGGCCTGGAGAACAT  
CAGGAAGCTGACGGCTGGGAAGCTGGCCGAGGACACTTTGATGGCAAAGGGGAGGTGGAGGAATACTTC  
CGAGACATCGGTGTTCCCATGACCAGTGTGCGGCTGCCTTGCTATTTGAGAATCTCCTTTCCTATTTCC  
TGCCCCAGAAAGCTGCAGATGGAAAAGCTTCTTGCTGGACTTGCCATGGGTGACGTCCCCATGGATGG  
AATGCTGTGAGTGACCTGGGCCCGTGGTGTCTCAGCTTGCTGAAGAAGCCAGAAGAGTACGTAGGGCAG  
AACATCGGGCTCAGTACCTGCAGGCACACCGCAGAGGAGTATGCTGCCTTGCTTAGCAAGCACACTGGCA  
AGGCTGTACATCATGCCAAGACAACCTCTGAGGATTACGAGAACTTGGTTTTCCAGGGGGCTCAAGACT  
GGCCAACATGTTCCGTTTCTACACCCTGAAACCTGATCGGAACATTCATCTGACCCTGCGACTCAACCC  
AAAGCCAGACTGGACCAGTGGCTGGAGCAGCACAAAGGGACTTTGCACAGCT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001290761  
**Insert Size:** 900 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001290761.1</a></u> , <u><a href="#">NP_001277690.1</a></u>
<b>RefSeq Size:</b>	1453 bp
<b>RefSeq ORF:</b>	900 bp
<b>Locus ID:</b>	67824
<b>UniProt ID:</b>	<u><a href="#">Q8K2T1</a></u>
<b>Cytogenetics:</b>	16 2.46 cM
<b>Gene Summary:</b>	<p>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 subsequently 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]</p> <p>Transcript Variant: This variant (2) lacks an in-frame exon in the 5' coding region, compared to variant 1. It encodes isoform 2, which is shorter compared to isoform 1.</p>