

## Product datasheet for **MC227869**

### **Nono (NM\_001252518) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Nono (NM_001252518) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nono
Synonyms:	AA407051; AV149256; nonA; NRB54; P54NRB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC227869 representing NM\_001252518  
 Red=Cloning site Blue=ORF Orange=Stop codon  
 TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**C

ATGCAGAGCAATAAGCCTTTAACTTGGAGAAGCAGAATCATACTCCAAGGAAGCATCATCAGCATCACC  
 ACCAGCAGCACCATCAGCAGCAACAGCAGCAGCAGCAACAGCCACCCCAACATACCTGCAATGG  
 CCAGCAGGCCAGCAGCCAGAATGAAGGCTTGACTATTGACCTGAAGAATTTAGGAAACAGGAGAGAAG  
 ACCTTTACACAGCGTAGCCGTCTCTTTGTGGGCAATCTTCCCCCTGATATCACTGAGGAGGAAATGAGGA  
 AACTATTTGAGAAATATGGAAAAGCAGGCGAAGTTTTCATTATAAGGATAAAGGCTTTGGCTTTATTTCG  
 CTTGGAACACGAACCTAGCGGAAATGCCAAAGTGGAGCTGGACAACATGCCCTCCGTGGGAAGCAG  
 CTGCGAGTGCGCTTGCCTGTCACAGTGCATCCCTTACAGTCCGCAACCTTCCTCAGTACGTGTCGAACG  
 AACTGCTGGAAGAAGCCTTTTCTGTGTTGCGCCAGGTGGAGAGGGCTGTAGTCATTGTGGATGACCGAGG  
 AAGGCCCTCAGGGAAGGCATTGTTGAGTCTCAGGGAAGCCAGCTGCTCGGAAAGCTCTGGACAGATGC  
 AGTGAAGGCTCCTTCTTGCTGACTACATTTCTCGGCCTGTGACTGTGGAGCCTATGGACCAGTTAGATG  
 ATGAAGAGGGACTTCCAGAGAACTGGTTATAAAAAACCAGCAATTCCACAAGGAGAGAGAACAGCCACC  
 CAGATTTGCACAACCTGGCTCCTTTGAGTATGAGTATGCCATGCGCTGGAAGGCACTCATTGAGATGGAG  
 AAGCAACAGCAGGATCAAGTGGATCGGAACATCAAGGAGGCTCGTGAGAAGCTGGAGATGGAGATGGAGG  
 CTGCACGTCATGAGCACCAGGTTATGCTAATGAGGCAGGATTTGATGAGACGTCAGAAGAGCTTCGGAG  
 AATGGAGGAGCTGCATAACCAAGAGGTTGAGAAGCGAAAGCAGTTAGAACTCAGGCAGGAAGAGGAACGC  
 AGGCGCCGTGAGGAAGAGATGCGCGCAGCAGCAAGAGGAAATGATGCGCCGACAGCAGGAAGGATTCAGG  
 GAACCTTCCCTGATGCGAGAGAACAAGAGATACGGATGGGCCAAATGGCTATGGGAGGTGCTATGGGCAT  
 AAACAATAGAGGCGCGATGCCCTGCTCCTGTGCCACCTGGTACTCCAGCTCCTCCAGGACCTGCCACT  
 ATGATGCCAGATGGAACCTTGATTGACCCACCAACAACCTGAACGTTTTGGCCAAGCTGCAACAATGG  
 AAGGAATTGGAGCAATTGGTGGAACTCCTCCTGCATTCAACCGTCCAGCTCCGGGAGCTGAATTTGCTCC  
 AAATAACGCGCGCGATAT**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-MluI  
**ACCN:** NM\_001252518  
**Insert Size:** 1422 bp  
**OTI Disclaimer:** 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).  
**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.  
**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\\_001252518.1](#), [NP\\_001239447.1](#)

**RefSeq Size:** 2465 bp

**RefSeq ORF:** 1422 bp

**Locus ID:** 53610

**UniProt ID:** [Q99K48](#)

**Cytogenetics:** X D

**Gene Summary:**

DNA- and RNA binding protein, involved in several nuclear processes. Binds the conventional octamer sequence in double-stranded DNA. Also binds single-stranded DNA and RNA at a site independent of the duplex site. Involved in pre-mRNA splicing, probably as a heterodimer with SFPQ. Interacts with U5 snRNA, probably by binding to a purine-rich sequence located on the 3' side of U5 snRNA stem 1b. Together with PSPC1, required for the formation of nuclear paraspeckles. The SFPQ-NONO heteromer associated with MATR3 may play a role in nuclear retention of defective RNAs. The SFPQ-NONO heteromer may be involved in DNA unwinding by modulating the function of topoisomerase I/TOP1. The SFPQ-NONO heteromer may be involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination and may stabilize paired DNA ends. In vitro, the complex strongly stimulates DNA end joining, binds directly to the DNA substrates and cooperates with the Ku70/G22P1-Ku80/XRCC5 (Ku) dimer to establish a functional preligation complex. NONO is involved in transcriptional regulation. The SFPQ-NONO-NR5A1 complex binds to the CYP17 promoter and regulates basal and cAMP-dependent transcriptional activity. NONO binds to an enhancer element in long terminal repeats of endogenous intracisternal A particles (IAPs) and activates transcription. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer. Important for the functional organization of GABAergic synapses. Plays a specific and important role in the regulation of synaptic RNAs and GPHN/gephyrin scaffold structure, through the regulation of GABRA2 transcript (PubMed:26571461). Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate splice site in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.