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Product datasheet for MG207550

Nono (NM_023144) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nono (NM_023144) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nono
Synonyms:	AA407051; AV149256; nonA; NRB54; P54NRB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG207550 representing NM_023144
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGAGCAATAAAGCCTTTAACTTGGAGAAGCAGAATCATACTCCAAGGAAGCATCATCAGCATCACC
ACCAGCAGCACCATCAGCAGCAACAGCAGCAGCAGCAGCAACAGCCACCCCCACCAATACCTGCAAATGG
CCAGCAGGCCAGCAGCCAGAATGAAGGCTTGACTATTGACCTGAAGAATTTTAGGAAACCAGGAGAGAAG
ACCTTTACACAGCGTAGCCGTCTCTTTGTGGGCAATCTTCCCCCTGATATCACTGAGGAGGAAATGAGGA
AACTATTTGAGAAATATGGAAAAGCAGGCGAAGTTTTCATTCATAAGGATAAAGGCTTTGGCTTTATTCG
CTTGGAAACACGAACCCTAGCGGAAATTGCCAAAGTGGAGCTGGACAACATGCCCCTCCGTGGGAAGCAG
CTGCGAGTGCGCTTTGCCTGTCACAGTGCATCCCTTACAGTCCGCAACCTTCCTCAGTACGTGTCGAACG
AACTGCTGGAAGAAGCCTTTTCTGTGTTCGGCCAGGTGGAGAGGGCTGTAGTCATTGTGGATGACCGAGG
AAGGCCCTCAGGGAAAGGCATTGTTGAGTTCTCAGGGAAGCCAGCTGCTCGGAAAGCTCTGGACAGATGC
AGTGAAGGCTCCTTCTTGCTGACTACATTTCCTCGGCCTGTGACTGTGGAGCCTATGGACCAGTTAGATG
ATGAAGAGGGACTTCCAGAGAAACTGGTTATAAAAAACCAGCAATTCCACAAGGAGAGAGAACAGCCACC
CAGATTTGCACAACCTGGCTCCTTTGAGTATGAGTATGCCATGCGCTGGAAGGCACTCATTGAGATGGAG
AAGCAACAGCAGGATCAAGTGGATCGGAACATCAAGGAGGCTCGTGAGAAGCTGGAGATGGAGATGGAGG
CTGCACGTCATGAGCACCAGGTTATGCTAATGAGGCAGGATTTGATGAGACGTCAAGAAGAGCTTCGGAG
AATGGAGGAGCTGCATAACCAAGAGGTTCAGAAGCGAAAGCAGTTAGAACTCAGGCAGGAAGAGGAACGC
AGGCGCCGTGAGGAAGAGATGCGGCGACAGCAAGAGGAAATGATGCGCCGACAGCAGGAAGGATTCAAGG
GAACCTTCCCTGATGCGAGAGAACAAGAGATACGGATGGGCCAAATGGCTATGGGAGGTGCTATGGGCAT
AAACAATAGAGGCGCGATGCCCCCTGCTCCTGTGCCACCTGGTACTCCAGCTCCTCCAGGACCTGCCACT
ATGATGCCAGATGGAACCCTTGGATTGACCCCACCAACAACTGAACGTTTTGGCCAAGCTGCAACAATGG
AAGGAATTGGAGCAATTGGTGGAACTCCTCCTGCATTCAACCGTCCAGCTCCGGGAGCTGAATTTGCTCC
AAATAAACGCCGCCGATAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

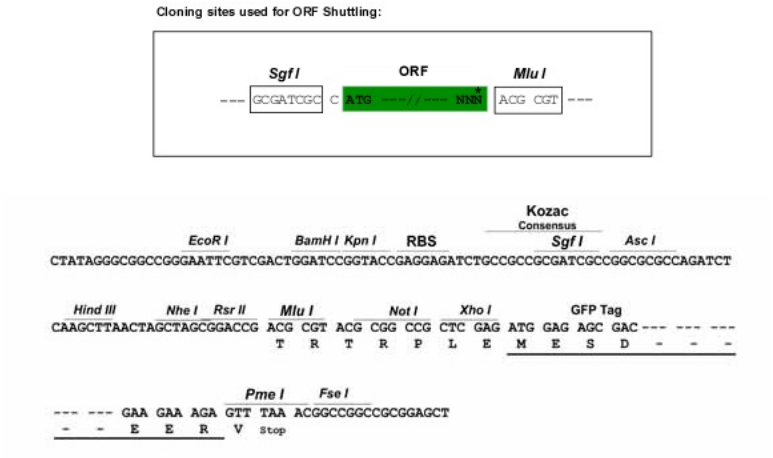
>MG207550 representing NM_023144
Red=Cloning site Green=Tags(s)

MQSNKAFNLEKQNHTPRKHHQHHHQQHHQQQQQQQQQQPPPPIPANGQQASSQNEGLTIDLKNFRKPGEK
TFTQRSRLFVGNLPPDITEEEMRKLFEKYGKAGEVFIHKDKGFGFIRLETRTLAEIAKVELDNMPLRGKQ
LRVRFACHSASLTVRNLPQYVSNELLEEAFSVFGQVERAVVIVDDRGRPSGKGIVEFSGKPAARKALDRC
SEGSFLLTTFPRPVTVEPMDQLDDEEGLPEKLVIKNQQFHKEREQPPRFAQPGSFEYEYAMRWKALIEME
KQQQDQVDRNIKEAREKLEMEMEAARHEHQVMLMRQDLMRRQEELRRMEELHNQEVQKRKQLELRQEEER
RRREEEMRRQQEEMMRRQQEGFKGTFPDAREQEIRMGQMAMGGAMGINNRGAMPPAPVPPGTPAPPGPAT
MMPDGTLGLTPPTTERFGQAATMEGIGAIGGTPPAFNRPAPGAEFAPNKRRRY

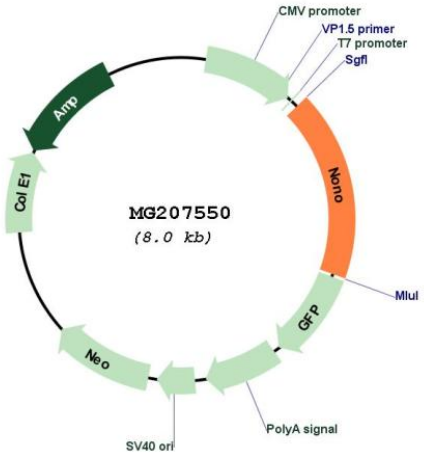
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_023144
ORF Size:	1419 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_023144.2, NP_075633.2
RefSeq Size:	2411 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]