

## Product datasheet for **MG225256**

### Neurod2 (NM\_010895) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Neurod2 (NM\_010895) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Neurod2  
**Synonyms:** bHLHa1; Ndrf  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG225256 representing NM\_010895  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGACCCGCCTGTTTCAGCGAGCCCGCCTCTCTCGGACGTGCCAAGTTCGCCAGCTGGGGCGACG  
 GCGACGACGACGAGCCGAGGAGCGACAAGGGCGACGCGCCGCGCAGCCTCTCTGCTCCCGGGTCTGG  
 GGCTCCAGGACCCGCCCGGGCCCAAGCCAGTGTCTCTCGTGGAGGAGAAGAGATCCCTGAACCCACG  
 TTGGCTGAGGTCAAGGAGGAAGGAGAGCTGGGGCGCGAGGAGGAGGAAGAGGAGGAGGAAGGAC  
 TGGACGAGGCGGAAGGCGAGCGGCCAAGAAGCGCGGGCCGAAGAAACGCAAGATGACCAAGGCGCTCT  
 GGAGCGCTCCAAGCTGCGGCGACAGAAGGCCAACGCGCGGGAGCGCAACCGCATGCACGACTGAACCGG  
 GCTCTGGACAACCTGCGCAAGGTGGTGCCTGCTACTCCAAGACGCAGAAGCTGTCCAAGATCGAGACCC  
 TGCGCCTGGCCAAGAACTACATCTGGGCTCTCTCGGAGATCTTGCCTCCGGGAAGCGGCCGGATCTGGT  
 GTCCTACGTGCAGACTCTGTGCAAGGGGCTGTACAGCCACCACGAATCTGGTGGCCGGCTGCCTGCAG  
 CTAACCTCTGTAACCTCCTCACGGAGCAGGGCGCGGACGGCGCCGGCCTTTACGGCTCGGGTGGCC  
 CGTTCGCCATGCATCCGTACCCATACCCGTGCTCCCGCTGGCAGGCGCACAGTGTACGGCGCTGGCGG  
 CCTGGGCGGAGGGCGGGCGCACGCCCTGCGGACCCACGGCTACTGCGCCGCTACGAGACGCTGTACGG  
 GCGGCGGTGGCGGGCGCTAGCCCGACTACAACAGTCCGAGTACGAGGGTCCACTCAGTCCCCCGC  
 TCTGTCTCAACGGCAACTTCTCGCTCAAGCAGGACTCGTCCCCGATCACGAGAAGAGCTACCACTACTC  
 TATGCACTACTCGGCGCTGCCCGCTCACGGCCACGGGCCACGGCTGGTCTTCGGCTCGTGGCCGTG  
 CGCGGGGGCTCCACTCCGAGAATCTTTGTCTTACGATATGCACCTTACCACGATCGGGGCCCATGT  
 ACGAGGAGCTCAACGCATTTTTCCATAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG225256 representing NM\_010895  
Red=Cloning site Green=Tags(s)

MLTRLFSEPGLLSDVPKFASWGDGDDDEPRSDKGDAPPQPPAPGSGAPGPARAAKPVSLRGEEIPEPT  
 LAEVKEEGELGGEEEEEEEEGLDEAGERPKKRKMTKARLERSKLRQKANARERNMHDLNA  
 ALDNLRKVVPCYSKTQKLSKIETLRLAKNYIWLSEILRSGKRPDLVSYVQTLCKGLSQPTTNLVAGCLQ  
 LNSRNFLTEQGADGAGRFHGSGGPFAMHPYPYPCSRLAGAQCQAAGGLGGAAHALRTHGYCAAYETLYA  
 AAGGGGASPDYNSSEYEGPLSPPLCLNGNFSLKQDSSPDHEKSYHYSMHYSALPGSRPTGHGLVFGSSAV  
 RGGVHSENLLSYDMHLHHRGPMYEELNAFFHN

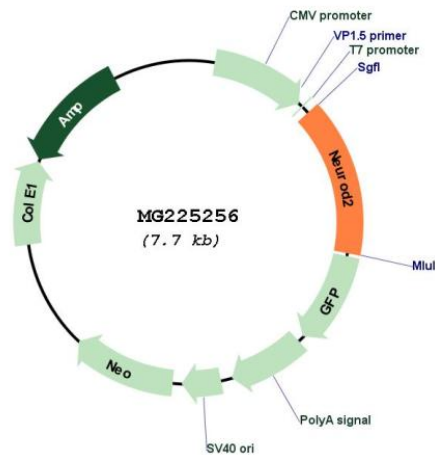
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_010895

<b>ORF Size:</b>	1149 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_010895.3</a> , <a href="#">NP_035025.3</a>
<b>RefSeq Size:</b>	3137 bp
<b>RefSeq ORF:</b>	1152 bp
<b>Locus ID:</b>	18013
<b>UniProt ID:</b>	<a href="#">Q62414</a>
<b>Cytogenetics:</b>	11 61.75 cM

**Gene Summary:**

Transcriptional regulator implicated in neuronal determination. Mediates calcium-dependent transcription activation by binding to E box-containing promoter. Critical factor essential for the repression of the genetic program for neuronal differentiation; prevents the formation of synaptic vesicle clustering at active zone to the presynaptic membrane in postmitotic neurons. Induces transcription of ZEB1, which in turn represses neuronal differentiation by down-regulating REST expression. Plays a role in the establishment and maturation of thalamocortical connections; involved in the segregation of thalamic afferents into distinct barrel domains within layer VI of the somatosensory cortex. Involved in the development of the cerebellar and hippocampal granular neurons, neurons in the basolateral nucleus of amygdala and the hypothalamic-pituitary axis. Associates with chromatin to the DPYSL3 E box-containing promoter.[UniProtKB/Swiss-Prot Function]