

## Product datasheet for **MG203232**

### Neil1 (BC043297) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Neil1 (BC043297) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Neil1  
**Synonyms:** 2810450N13Rik; Nei1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG203232 representing BC043297  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGAGGGCCAGAGCTGCACCTGGCCAGCCACTTTGTGAATGAGACATGTAAGGGGCTGGTATTTG  
GTGGGTGTGTGGAGAAGTCCTCTGTCAGCCGGAACCCGGAGGTGCCCTTTGAGAGCAGTGCCTACCAT  
CTCAGCTTTAGCCCGAGGCAAGGAGCTGCGCTTGACATTGAGCCCCTGCCTGGTCCCAGCCCCCTCAG  
AAGCCACTGTCCCTTGTCTTCCGCTTTGGGATGTCAGGATCCTTCCAGCTGGTACCCGCAGAGGCACTGC  
CCCGCCACGCCATCTACGTTTTTACACAGCCCCACCTGCTCCCGGCTTGCCCTTGTTCGTAGACAT  
CCGTCGCTTTGGCACTGGGATCCTGGGGTGAATGGCAACCAGGCCGTGGACCTGTGTCTTGCTGGAG  
TATGAACGGTTCAGAGAGAACGTAATTCGGAACCTATCAGACAAAGCCTTTGACCGGCCATCTGCGAGG  
CCTTGTGGACCAGAGGTTCTTCAATGGCATTGGCAACTATCTGCGGGCAGAGATCCTGTACCGGCTGAA  
GATCCCTCCTTTGAGAAGGCTCGTACAGTTCTAGAGGCCCTGCAACAGTGCCGGCCGAGCCAGAGCTG  
ACCCTGAGCCAGAAGATCAAGGCCAACTACAGAACCCAGACCTGCTGGAAGTGTGCACTTGGTGGCCA  
AGGAAGTGGTTCAGCTGGGTGAGGCTGGGGAGGTCAAGATGGCCGGCGGCTCTACCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >MG203232 representing BC043297  
 Red=Cloning site Green=Tags(s)

MPEGPELHLASHFVNETCKGLVFGGCVKSSVSRNPEVPFESSAYHISALARGKELRLTLSPLPGSQPPQ  
 KPLSLVFRFGMSGFQLVPAEALPRHAHLRFYTAPPAPRLALCFVDIRRFHGWDPGGEWQPGRGPCVLLLE  
 YERFRENVLRLNSDKAFDRPICEALLDQRFNFNGIGNYLRAEILYRLKIPPFKARTVLEALQQCRPSPEL  
 TLSQKIKAKLQNPDLLELCHLVPKEVVQLGEAWGGQDGRRLPL

TRTRPLE - GFP Tag - V

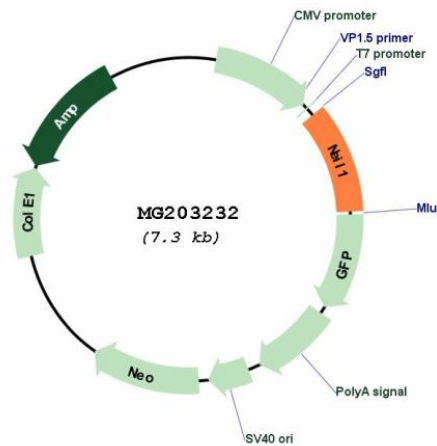
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** BC043297

**ORF Size:** 761 bp

<b>OTI Disclaimer:</b>	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>
<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="#">BC043297</a> , <a href="#">AAH43297</a>
<b>RefSeq Size:</b>	1857 bp
<b>RefSeq ORF:</b>	761 bp
<b>Locus ID:</b>	72774
<b>Cytogenetics:</b>	9 B
<b>Gene Summary:</b>	Involved in base excision repair of DNA damaged by oxidation or by mutagenic agents. Acts as DNA glycosylase that recognizes and removes damaged bases. Has a preference for oxidized pyrimidines, such as thymine glycol, formamidopyrimidine (Fapy) and 5-hydroxyuracil. Has marginal activity towards 8-oxoguanine. Has AP (apurinic/aprimidinic) lyase activity and introduces nicks in the DNA strand. Cleaves the DNA backbone by beta-delta elimination to generate a single-strand break at the site of the removed base with both 3'- and 5'-phosphates. Has DNA glycosylase/lyase activity towards mismatched uracil and thymine, in particular in U:C and T:C mismatches. Specifically binds 5-hydroxymethylcytosine (5hmC), suggesting that it acts as a specific reader of 5hmC.[UniProtKB/Swiss-Prot Function]