

Product datasheet for **MG222581**

Neil1 (NM_028347) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neil1 (NM_028347) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Neil1
Synonyms:	2810450N13Rik; NEH1; Nei1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222581 representing NM_028347 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGAGGGCCAGAGCTGCACCTGGCCAGCCACTTTGTGAATGAGACATGTAAGGGGCTGGTATTTG
GTGGGTGTGTGGAGAAGTCTCTGTGACCCGGAACCCGGAGGTGCCCTTTGAGAGCAGTGCCACACAT
CTCAGCTTTAGCCCGAGGCAAGGAGCTGCGTTGACATTGAGCCCCCTGCCTGGTCCCAGCCCCCTCAG
AAGCCACTGTCCCTTGTCTTCCGCTTTGGGATGTCAGGATCCTTCCAGCTGGTACCCGCAGAGGCACTGC
CCCGCCACGCCATCTACGTTTTACACAGCCCCACCTGCTCCCCGGCTTGCCCTTGTCTCGTAGACAT
CCGTGCGTTTGGCCACTGGGATCCTGGGGTGAATGGCAACCAGGCCGTGGACCCGTGTCTTGTGGAG
TATGAACGGTTCAGAGAGAACGTACTTCGGAACCTATCAGACAAAGCCTTTGACCGGCCATCTGTGAGG
CCTTGTGGACCAGAGGTTCTTCAATGGCATTGGCAACTATCTGCGGGCAGAGATCCTGTACCGGTGAA
GATCCCTCCTTTGAGAAGGCTCGTACAGTTCTAGAGGCCCTGCAACAGTGCCGGCCGAGCCAGAGCTG
ACCCTGAGCCAGAAGATCAAGGCCAACTACAGAACCCAGACCTGCTGGAAGTGTGCTCACTTGGTCCCCA
AGGAAGTGGTTCAGCTGGGGGCAAAGGCTATGGCCAGAGCGTGAGAGGAGGATTTTGTGCTTTCG
AGCCTGGCTTCGGTGTATGGTGTGCCAGGCATGAGCTCCCTGCGAGACCGGCATGGCCGTACCATCTGG
TTCCAGGTGATCCCGACCTTGGCACCCAAAGGGGGCAGATCCCAAAAAAGAAGTACAGGAGACAC
AGCTGGGGGCTGAGGACAGGAAAGAGGACCTTCCACTTTCAAGCAAGTCCGTTTTCCAGGATGCGGAGGGC
CAGGAAGCACCTCCTAAGAGAATAGCTCAACAGTCTGAAGGGGCCGCTCCTCAACAAAACCAGGAAACC
CCTACAGCTCCTGAGAAAGGGAAGAGGAGGGGGCAACGGGCGAGCACAGGCCACCGCAGACGCCAAAGA
CTATACCTGACACCCGACCCAGGAGGCTGGGGAGAGTTCAGCTTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG222581 representing NM_028347
 Red=Cloning site Green=Tags(s)

MPEGPELHLASHFVNETCKGLVFGGCVKSSVSRNPEVPFESSAYHISALARGKELRLTSLPLPGSQPPQ
 KPLSLVFRFGMSGFQLVPAEALPRHAHLRFYTAPPAPRLALCFVDIRRFHGWDPGGEWQPRGRCVLLLE
 YERFRENVLRLNSDKAFDRPICEALLDQRFNFNGIGNYLRAEILYRLKIPPFKARTVLEALQQCRPSPEL
 TLSQKIKAKLQNPDLLELCHLVPKEVVQLGGKGYGPERGEEDFAAFRAWLRICYGVPGMSSLRDRHGRTIW
 FQGDPPGLAPKGGRSQKKKSQETQLGAEDRKEDLPLSSKSVSRMRARKHPPKRIAQQSEGALQQNQET
 PTAPEKGRRQRASTGHRRRPKTIPDTRPREAGESSAS

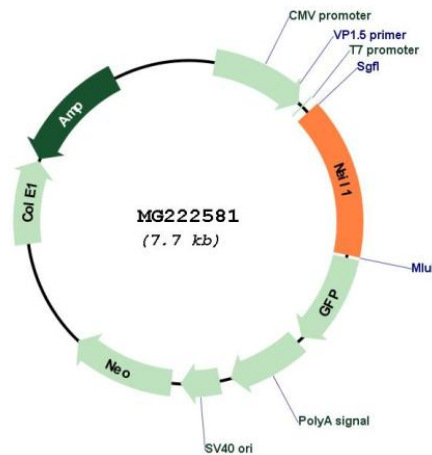
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_028347

ORF Size:	1167 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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_028347.3
RefSeq Size:	1170 bp
RefSeq ORF:	1170 bp
Locus ID:	72774
UniProt ID:	Q8K4Q6
Cytogenetics:	9 B
Gene Summary:	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]