

Product datasheet for **MG220912**

Neil2 (NM_201610) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neil2 (NM_201610) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Neil2
Synonyms:	Gm1212; NEH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220912 representing NM_201610 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGAAGGGCCATCTGTGAGGAAGTTTCACCATCTTGTCTCCCCCTTGTGGGCCAGAAGGTGGTCA
AGACGGGGGGCAGCAGTAAGAAGCTCCACCCTGCCGCCTTTCAGTCTCTGTGGCTCCAGGATGCTCAGGT
GCATGGAAAAAATTATTCCTTCGGTTTGATCCAGATGAGGAGATGGAGCCACTCAACAGCAGCCCACAG
CCTATACAGGGAATGTGGCAGAAAGAGGCTGTGGACCGAGAGCTGGCCTTGGTCCCAGTCTCAGGAAC
CCTCTGCAGGTCCCTCTGGATCTGGGAGCCTGTCCAGTAGATCTGCTGAAACATATAATCTTGGGAA
GATCCCCCTCAGCAGATGCCAGAGGTGGCTGGAGGTCAGGTTTGGTTTATTTGGCAGTATCTGGGTGAAT
GACTTCTCCAGAGCAAAGAAAGCTAACAAAAAGGTGACTGGAGAGACCCAGTGCCAGGCTGGTACTCC
ATTTTAGTGGTGGTGGCTTCTGGTATTTTATAACTGCCAGATGTCATGGAGCCCTCCCCAGTGATTGA
GCCCACCTGTGACATATTGTCTGAAAAGTTCCATCGAGGACAAGCCTTGGAAAGCTCTAAGCCAGGCTCAG
CCTGTGTGCTACACACTTTGGACCAGAGATACTTCTCAGGATTAGGGAACATCATAAAGAATGAAGCCT
TGTACAGAGCAAGGATCCATCCCCTCTCTCGGTTTCATGCTGAGTTCTTCTCTCGGGAGGCCCTCGT
GGATCACGTGGTGGAGTTCAGTAAGGACTGGCTTCGGGACAAATCCAAGGCAAGGAACGGCACACACAG
ATCTACCAGAAGGAACAATGTCTTCTGGTCACCAGGTCATGAAGGAGACATTTGGCCCCCAGATGGGC
TCCAGAGGCTCACCTGGTGGTGCCTCAATGCCAGCCCCAGCTGTCTCCAAGGGGCCCCAGAATCTCCC
GTCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG220912 representing NM_201610
 Red=Cloning site Green=Tags(s)

MPEGPSVRKFHHLVSPFVGQKVVKTGGSSKKLHPAAFQSLWLQDAQVHGKKLFLRFDPDEEMEPLNSSPQ
 PIQGMWQKEAVDRELALGPSAQEPSAGPSGSGEPVPSRSAETYNLGKIPSADAQRWLEVRFLFGSIWVN
 DFSRAKKANKKGDWRDPVPRLLVLFHSGGGFLVFYNCQMSWSPPPVIEPTCDILSEKFHRGQALEALSQAQ
 PVCYTLLDQRYFSGLGNIKNEALYRARIHPLSLGSLSSSSREALVDHVVEFSKDWL RDKFQGKERHTQ
 IYQKEQCPSGHQVMKETFGPPDGLQRLTWWCPQCQPQLSSKGPQLNPSS

TRTRPLE - GFP Tag - V

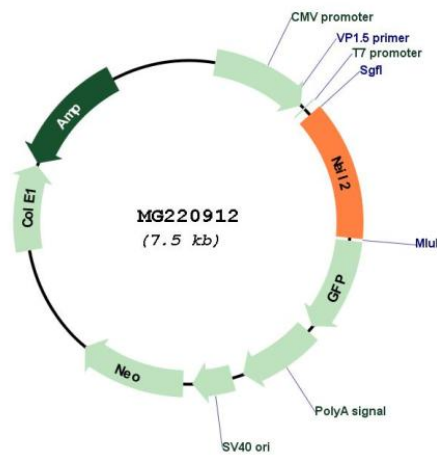
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_201610

ORF Size: 987 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_201610.2 , NP_963904.2
RefSeq Size:	1914 bp
RefSeq ORF:	990 bp
Locus ID:	382913
UniProt ID:	Q6R2P8
Cytogenetics:	14 D1
Gene Summary:	<p>Involved in base excision repair of DNA damaged by oxidation or by mutagenic agents. Has DNA glycosylase activity towards 5-hydroxyuracil and other oxidized derivatives of cytosine with a preference for mismatched double-stranded DNA (DNA bubbles). Has low or no DNA glycosylase activity towards thymine glycol, 2-hydroxyadenine, hypoxanthine and 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 (By similarity). [UniProtKB/Swiss-Prot Function]</p>