

Product datasheet for MR222581

Neil1 (NM_028347) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neil1 (NM_028347) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neil1
Synonyms:	2810450N13Rik; NEH1; Nei1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR222581 representing NM_028347 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGAGGGCCAGAGCTGCACCTGGCCAGCCACTTTGTGAATGAGACATGTAAGGGGCTGGTATTTG
GTGGGTGTGTGGAGAAGTCTCTGTGAGCCGGAACCCGGAGGTGCCCTTTGAGAGCAGTGCCTACCAT
CTCAGCTTTAGCCCGAGGCAAGGAGCTGCGCTTGACATTGAGCCCCTGCCTGGGTCCCAGCCCCCTCAG
AAGCCACTGTCCCTTGTCTTCCGCTTTGGGATGTCAGGATCCTTCCAGCTGGTACCCGCAGAGGCACTGC
CCCGCCACGCCATCTACGTTTTTACACAGCCCCACCTGCTCCCCGGCTTGCCCTTTGCTTCGTAGACAT
CCGTCGCTTTGGCCACTGGGATCCTGGGGTGAATGGCAACCAGGCCGTGGACCTGTGTCTTGCTGGAG
TATGAACGGTTCAGAGAGAACGTAATTCGGAACCTATCAGACAAAGCCTTTGACCGGCCATCTGTGAGG
CCTTGTGGACCAGAGTTCTTCAATGGCATTGGCAACTATCTGCGGGCAGAGATCCTGTACCGGCTGAA
GATCCCTCCTTTTGAGAAGGCTCGTACAGTTCTAGAGGCCCTGCAACAGTGCCGGCCGAGCCAGAGCTG
ACCCTGAGCCAGAAGATCAAGGCCAAACTACAGAACCCAGACCTGCTGGAAGTGTGTCACTTGGTGCCCA
AGGAAGTGGTTCAGCTGGGGGGCAAAGGCTATGGCCAGAGCGTGGAGAGGAGGATTTTGTGCTGCTTTTCG
AGCCTGGCTTCGGTGCTATGGTGTGCCAGGCATGAGCTCCCTGCGAGACCGGCATGGCCGTACCATCTGG
TTCCAGGGTGATCCCGACCCCTTGGCACCCAAAGGGGCGAGATCCAAAAAAGAAGTCACAGGAGACAC
AGCTGGGGCTGAGGACAGGAAAGAGGACCTTCCACTTTCAAGCAAGTCCGTTTCCAGGATGCGGAGGGC
CAGGAAGCACCTCCTAAGAGAAAGCTCAACAGTCTGAAGGGGCGGCCCTCAACAAAACCAGGAAACC
CCTACAGCTCCTGAGAAAGGGAAGAGGAGGGGGCAACGGGCGAGCACAGGCCACCCGAGACGCCAAAGA
CTATACCTGACACCCGACCCAGGAGGCTGGGGAGAGTTCAAGTTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR222581 representing NM_028347
 Red=Cloning site Green=Tags(s)

MPEGPELHLASHFVNETCKGLVFGGCVKSSVSRNPEVPFESSAYHISALARGKELRLTSLPLPGSQPPQ
 KPLSLVFRFGMSGFQLVPAEALPRHAHLRFYTAPPAPRLALCFVDIRRFGHWDPGGEWQPRGRPCVLLLE
 YERFRENVLRLNSDKAFDRPICEALLDQRFENGIGNYLRAEILYRLKIPPFKARTVLEALQQCRPSPEL
 TLSQKIKAKLQNPDLLELCHLVPKEVVQLGGKGYGPERGEEDFAAFRAWLRICYGVPGMSSLRDRHGRTIWF
 FQGDPPGLAPKGGRSQKKKSQETQLGAEDRKEDLPLSSKSVSRMRARKHPPKRIAQQSEGAGLQQNQET
 PTAPEKGRRGQRASTGHRRRPKTIPDTRPREAGESSAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

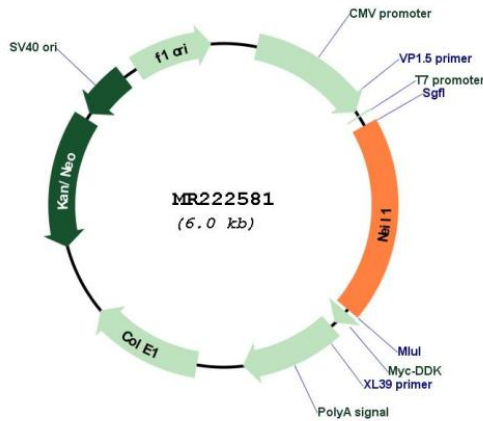
Restriction Sites:

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
MW:	44 kDa

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]