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# Product datasheet for RC202329

## NEIL1 (NM_024608) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | NEIL1 (NM_024608) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | NEIL1 |
| **Synonyms:** | FPG1; hFPG1; NEI1 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC202329 representing NM_024608
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTGAGGGCCCCGAGCTGCACCTGGCCAGCCAGTTTGTGAATGAGGCCTGCAGGGCGCTGGTGTTCG
GCGGCTGCGTGGAGAAGTCCTCTGTCAGCCGCAACCCTGAGGTGCCCTTTGAGAGCAGTGCCTACCGCAT
CTCAGCTTCAGCCCGCGGCAAGGAGCTGCGCCTGATACTGAGCCCTCTGCCTGGGGCCCAGCCCCAACAG
GAGCCACTGGCCCTGGTCTTCCGCTTCGGCATGTCCGGCTCTTTTCAGCTGGTGCCCCGCGAGGAGCTGC
CACGCCATGCCCACCTGCGCTTTTACACGGCCCCGCCTGGCCCCCGGCTCGCCCTATGTTTCGTGGACAT
CCGCCGGTTCGGCCGCTGGGACCTTGGGGGAAAGTGGCAGCCGGGCCGCGGGCCCTGTGTCTTGCAGGAG
TACCAGCAGTTCAGGGAGAGTGTGCTACGAAACCTAGCGGATAAGGCCTTTGACCGGCCCATCTGCGAGG
CCCTCCTGGACCAGAGGTTCTTCAATGGCATTGGCAACTATCTGCGGGCAGAGATCCTGTACCGGCTGAA
GATCCCCCCCTTTGAGAAGGCCCGCTCGGTCCTGGAGGCCCTGCAGCAGCACAGGCCGAGCCCGGAGCTG
ACCCTGAGCCAGAAGATAAGGACCAAGCTGCAGAATCCAGACCTGCTGGAGCTATGTCACTCAGTGCCCA
AGGAAGTGGTCCAGTTGGGGGGCAGGGGCTACGGGTCAGAGAGCGGGGAGGAGGACTTTGCTGCCTTTCG
AGCCTGGCTGCGCTGCTATGGCATGCCAGGCATGAGCTCCCTGCAGGACCGGCATGGCCGTACCATCTGG
TTCCAGGGGGATCCTGGACCGTTGGCACCCAAAGGGCGCAAGTCCCGCAAAAAGAAATCCAAGGCCACAC
AGCTGAGTCCTGAGGACAGAGTGGAGGACGCTTTGCCTCCAAGCAAGGCCCCTTCCAGGACACGAAGGGC
AAAGAGAGACCTTCCTAAGAGGACTGCAACCCAGCGGCCTGAGGGGACCAGCCTCCAGCAGGACCCAGAA
GCTCCCACAGTGCCCAAGAAGGGGAGGAGGAAGGGGCGACAGGCAGCCTCTGGCCACTGCAGACCCCGGA
AGGTCAAGGCTGACATCCCATCCTTGGAACCAGAGGGGACCTCAGCCTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:**

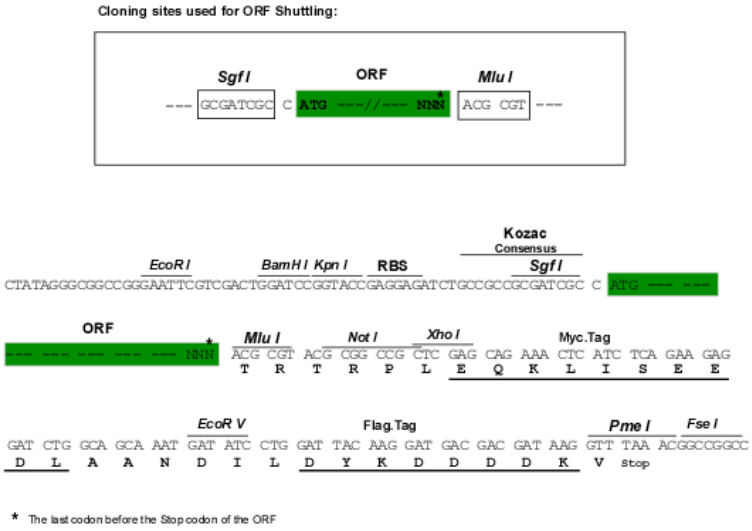
>RC202329 representing NM_024608
Red=Cloning site Green=Tags(s)

MPEGPELHLASQFVNEACRALVFGGCVEKSSVSRNPEVPFESSAYRISASARGKELRLILSPLPGAQPQQ
EPLALVFRFGMSGSFQLVPREELPRHAHLRFYTAPPGPRLALCFVDIRRFGRWDLGGKWQPGRGPCVLQE
YQQFRESVLRNLADKAFDRPICEALLDQRFFNGIGNYLRAEILYRLKIPPFEKARSVLEALQQHRPSPEL
TLSQKIRTKLQNPDLLELCHSVPKEVVQLGGRGYGSESGEEDFAAFRAWLRCYGMPGMSSLQDRHGRTIW
FQGDPGPLAPKGRKSRKKKSKATQLSPEDRVEDALPPSKAPSRTRRAKRDLPKRTATQRPEGTSLQQDPE
APTVPKKGRRKGRQAASGHCRPRKVKADIPSLEPEGTSAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_024608

**ORF Size:** 1170 bp

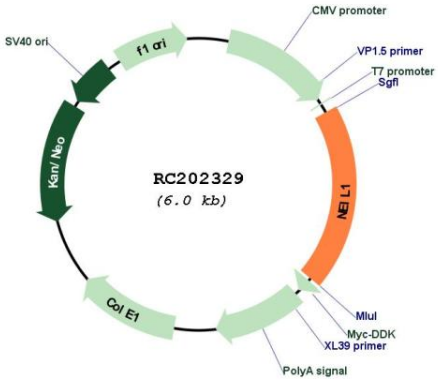
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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.

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

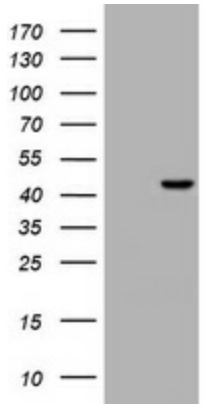
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

| | |
|---|---|
| **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:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_024608.1, NP_078884.1 |
| **RefSeq Size:** | 1896 bp |
| **RefSeq ORF:** | 1173 bp |
| **Locus ID:** | 79661 |
| **UniProt ID:** | Q96FI4 |
| **Cytogenetics:** | 15q24.2 |
| **Domains:** | Fapy_DNA_glyco |
| **Protein Families:** | Druggable Genome |
| **Protein Pathways:** | Base excision repair |
| **MW:** | 43.7 kDa |
| **Gene Summary:** | This gene is a member of the Nei endonuclease VIII-like gene family which encodes DNA glycosylases. The encoded enzyme participates in the DNA repair pathway by initiating base excision repair by removing damaged bases, primarily oxidized pyrimidines. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012] |

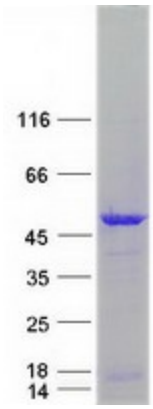
## Product images:




Circular map for RC202329




HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NEIL1 (Cat# RC202329, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NEIL1(Cat# [TA800344]). Positive lysates [LY411199] (100ug) and [LC411199] (20ug) can be purchased separately from OriGene.




Coomassie blue staining of purified NEIL1 protein (Cat# [TP302329]). The protein was produced from HEK293T cells transfected with NEIL1 cDNA clone (Cat# RC202329) using MegaTran 2.0 (Cat# [TT210002]).