

Product datasheet for **MC206012**

Neil3 (NM_146208) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neil3 (NM_146208) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Neil3
Synonyms:	A1449477; BC034753; C85903
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC024921
 GCGGGCTACAGAGATGGTGAAGGGCCAGGGTGTACACTGAATGGAGAGAAGATCCGGGCACGAGTGCTA
 CCGGGGCAGGCGGTGACTGGCGTGCAGGGGACAGCTCTGCAGAGCCTCCTGGGCCCTGCCATGTCCCCTG
 CCGCTCCCCGGCTGATGCGCTACCTCGGCTGCTCCAATGAATGCTAAGGATTCTGGCTGGAACTCTT
 GAGACTGTTTAAATGGATATGTTTACAGTGGCGTGGAACTTAGGGAAGGAGCTGTTATGACTTTGGC
 CACAGAGCTTTACGGATTCATTCGGAATGAAAGGCTCCATCTTGATTAACCCACGGGAGGGTGAGAACA
 GAGGTGGGGCTTCTCAGCCTTGGCGGTGCAGCTCACCAGAGACTTGATCTGCTTCTATGACTCTTCAGT
 AGAACTCAGAAATTCGGTGGAAAGCCAACAGAGAGTCAGAGAGATGGAAGAGTTGGATATATGTTACCA
 AAGTTCAGTTTCTCAAGAGCAGAGAGTGAAGTGAAGAAAGCAGGGAGATCGGATGCTGTGTGATGTTGC
 TGGATCAGAGGGTGTGCTGGCGTGGGCAACATCATCAAAAATGAAGCACTCTTTGACAGTGGTCTTCA
 TCCGGCTGTTAAGGTGTCAACTATCAGACAAACAGGCCCGTCACCTTGTGAAGATGACTCGGGATTTT
 AGCATTCTCTTACAGGTGCTGTAAGCAGGATCTGCCATTTCTAAACTGTAAGGTTTACAAGCGTC
 CTAAGTGTGGTCAAGTCCACAGCAAAATTAAGTGTGTCGCTTTGGGAGAACAGCAGGATGACATATTT
 CTGTCCCTACTGTCAGAAAGAAAACCTCAACGTGTTCAAGTATGCCAGCTGCCAACAAGAACTGAA
 ATCAGCTGGACTCCTAGGGGAGAGGATTGCTTTACGGACTCAGTGGCTCGGAAGTCTGAAGAGCAGTGGT
 CCTGTGCGGTTTGTACTCTATAAAGACAGCCCTCGGCTAAGGCCTGTGATGCTTGTGACCACAAGGCC
 TCTGGATTCAGTCTCAAGAATAGAGAAAATCCATTGCCTTCAACAACCTTAGTGAAGTACCCCTGTAAT
 AACTTTGAGAACACACACTGAAGTAAAGATCAACAGGAAAACCTGCGTTTGGAAATACGACCCTTGTTT
 TGACTGATTTAAGCAATAAATCCAGTGTCTTGGCCAGAAAAGAAAAGCAAAACCACACAATAGATGGGGA
 ATCTCAAATGTTTCTCCCTACAGACATAGGTTTTAGTGATTACAGCACCCCTCCAAAGAAGGAATAAAC
 TATATAACTCAACCATCAATAAGGTAACATATCACCTACAGTTTGTGCCAGTCTAAATATTTAGTT
 CAGCACATAAAAAATCAAACCAGCTCACACTTCTGCAACAGAACTTAAAGTTACAACCTGGACTTTC
 TAACAGTGAACCTCAAACCAATAGGACAGTGGCCATCATTCAAAAGTATGGCAGCCCTCTGTGCAAG
 ATGCACCACCGCGCTGTGTTCTCCGAGTTGTGAGGAAAAGATGGAGAAAACAAGGGGAGGAGTTTTATG
 CCTGTTCTCTGCCGAGAGGAGCACAGTGCAGATTTTTGAATGGGAGACCTGTCCTTCCGTTCTGCAA
 ACATGGCAAGCGCTCCATTATGAAAAGTGTGCTGAAAGATTGGACCTAATAATGGGAAGAATTTTTTGT
 TGTCTTTGGAGAAAAGAAAGCAGTGTAAATTTTTCCAGTGGGCCGAAAATGGACCAGGAATGGAATTTG
 TTCCAGGATGCTAATAGTTTTCTTTTTAAAGAAATGCCCGTCTCATAAACTCATAACTCATAGCATT
 CAGTCCCCTTTGTTAATAGAAAATTAAGAACCTGTTGTACATACACATTAAGAACCTGTAGTATT
 TGAGACATTTTTTTCACTTAACATATGTGATCTTACAGTTTTTGTGTAATAATGAACACACTATTTCA
 CCAGAGGCACAGTCCATTCTTTGAAATGCATATTCAATATAGTTAATAATGATGTCAATAAAGTACTC
 TTAGAATGTTAAA
 AAAAAAAAAAAAAAAAAAAAAA

- Restriction Sites:** RsrII-NotI
- ACCN:** NM_146208
- Insert Size:** 1821 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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.
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: [BC024921](#), [AAH24921](#)

RefSeq Size: 2191 bp

RefSeq ORF: 1821 bp

Locus ID: 234258

UniProt ID: [Q8K203](#)

Cytogenetics: 8 B1.3

Gene Summary: DNA glycosylase which prefers single-stranded DNA (ssDNA), or partially ssDNA structures such as bubble and fork structures, to double-stranded DNA (dsDNA). In vitro, displays strong glycosylase activity towards the hydantoin lesions spiroiminodihydantoin (Sp) and guanidinohydantoin (Gh) in both ssDNA and dsDNA; also recognizes FapyA, FapyG, 5-OHU, 5-OHC, 5-OHMH, Tg and 8-oxoA lesions in ssDNA. No activity on 8-oxoG detected. Also shows weak DNA-(apurinic or apyrimidinic site) lyase activity. In vivo, appears to be the primary enzyme involved in removing Sp and Gh from ssDNA in neonatal tissues. Seems to be an important facilitator of cell proliferation in certain populations, for example neural stem/progenitor cells and tumor cells, suggesting a role in replication-associated DNA repair. [UniProtKB/Swiss-Prot Function]