

Product datasheet for **RG200913**

NEIL2 (NM_145043) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | NEIL2 (NM_145043) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | NEIL2 |
| Synonyms: | NEH2; NEI2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG200913 representing NM_145043 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGAAGGGCCGTTGGTGAGGAAATTCACCATTTGGTCTCCCCCTTGTGGGTCAGCAGGTGGTCA
AGACAGGGGGCAGCAGTAAGAAGCTACAGCCCGCCAGCCTGCAGTCTCTGTGGCTCCAGGACACCCAGGT
CCATGGAAAGAAATTATTCCTTAGATTTGATCTAGATGAAGAAATGGGGCCCCCTGGCAGCAGCCCAACA
CCAGAGCCTCCACAAAAAGAAGTCAGAAGGAAGGGGCTGCGGACCCAAAGCAGGTCGGGGAGCCACGCG
GGCAGAAGACCCTTGATGGATCCTCACGGTCTGCAGAGCTCGTCCCCAGGGCGAGGATGATTCTGAGTA
TTTGGAGAGAGACGCCCCCTGCAGGAGATGCTGGGAGGTGGCTGCGTGTCAGCTTTGGTTTGGTGGCAGC
GTTTGGGTGAACGATTTCTCCAGAGCCAAGAAAGCCAACAAGAGGGGGGACTGGAGGGACCTTCCCCGA
GGTTGGTCTGCACTTTGGTGGTGGTGGCTTCTGGCATTTTATAAATGTGAGTTGTCTTGGAGCTCTTC
CCCGGTGGTCACACCCACCTGTGACATCCTGTCTGAGAAGTTCCATCGAGGACAAGCCTTAGAAGCTCTA
GGCCAGGCTCAGCCTGTCTGCTATACACTGCTGGACCAGAGATACTTCTCAGGGCTAGGGAAACATCATT
AGAATGAAGCCTTGTACAGAGCTGGGATCCATCCCCTTCTCTCGGTTGAGTCTGAGTGCCTCGCGTGC
GGAGGTCTGGTGGATCACGTGGTGGAGTTCAGTACAGCCTGGCTGCAGGGCAAGTCCAAGGCAGACCC
CAGCACACAGGTCTACCAGAAAGAACAGTGCCTGCTGGCCACCAGGTCATGAAGGAGCGGTTTGGGC
CGAAGATGGGTTACAGAGGCTCACCTGGTGGTGCCCGCAGTGCCAGCCCCAGTTGTGAGAGGCCAGAG
GCAGTGCCAGTTCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200913 representing NM_145043
Red=Cloning site Green=Tags(s)

MPEGPLVRKFHHLVSPFVGGQVVKTGGSSKKLQPASLQSLWLQDTQVHGKKLFLRFDLDEEMGPPGSSPT
 PEPPQKEVQKEGAADPKQVGEPGSGQKTLDGSSRSAELVPQGEDDSEYLERDAPAGDAGRWLRVSFGLFGS
 VVWVDFSRACKANKRGDWRDPSRLVLHFGGGFLAFYNCQLSWSSSPVVTPTCDILSEKFHRGQALEAL
 GQAQPVCTLLDQRYFSGLGNIIKNEALYRAGIHPLSLGSVLSASRREVLVDHVVEFSTAWLQGKFQGRP
 QHTQVYQKEQCPAGHQVMKEAFGPEDGLQRLTWWCPQCQPQLSEEPEQCQFS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145043

ORF Size: 996 bp

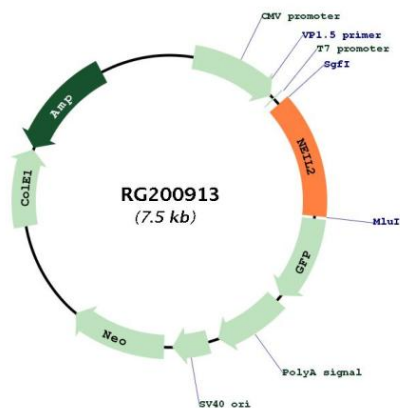
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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).

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|-------------------------------|--|
| 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_145043.1 , NP_659480.1 |
| RefSeq Size: | 2661 bp |
| RefSeq ORF: | 999 bp |
| Locus ID: | 252969 |
| UniProt ID: | Q969S2 |
| Cytogenetics: | 8p23.1 |
| Domains: | Fapy_DNA_glyco |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Base excision repair |
| Gene Summary: | <p>This gene encodes a member of the Fpg/Nei family of DNA glycosylases. These glycosylases initiate the first step in base excision repair by cleaving oxidatively damaged bases and introducing a DNA strand break via their abasic site lyase activity. This enzyme is primarily associated with DNA repair during transcription and acts preferentially on cytosine-derived lesions, particularly 5-hydroxyuracil and 5-hydroxycytosine. It contains an N-terminal catalytic domain, a hinge region, and a C-terminal DNA-binding domain with helix-two-turn-helix and zinc finger motifs. This enzyme interacts with the X-ray cross complementing factor 1 scaffold protein as part of a multi-protein DNA repair complex. A pseudogene of this gene has been identified. [provided by RefSeq, Mar 2017]</p> |

Product images:



Circular map for RG200913