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Product datasheet for RC206838

NEI3 (NEIL3) (NM_018248) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NEI3 (NEIL3) (NM_018248) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NEI3
Synonyms:	FGP2; FPG2; hFPG2; hNEI3; NEI3; ZGRF3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC206838 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGGAAGGACCAGGCTGTACTCTGAATGGAGAGAAGATTCGAGCGCGGGTGCTCCCGGGCCAGGCGG
TGACCGGCGTGCGGGGAAGCGCTCTGCGGAGTCTGCAGGGCCGCGCCTTGCGGCTCGCAGCCTCCACGGT
TGTGGTCTCCCCGCAGGCTGCTGCACTGAATAATGATTCCAGCCAGAATGTCTTGAGCCTGTTTAATGGA
TATGTTTACAGTGGCGTGGAAACTTTGGGGAAGGAGCTCTTTATGTACTTTGGACCAAAAGCTTTACGGA
TTCATTTCGGAATGAAAGGCTTCATCATGATTAATCCACTTGAGTATAAATATAAAAATGGAGCTTCTCG
TGTTTTGGAAGTGCAGCTCACCAAAGATTTGATTTGTTTCTTTGACTCATCAGTAGAACTCAGAAACTCA
ATGGAAAGCCAACAGAGAATAAGAATGATGAAAGAATTAGATGTATGTTCACCTGAATTTAGTTTCTTGA
GAGCAGAAAGTGAAGTTAAAAAACAGAAAGGCCGGATGCTAGGTGATGTGCTAATGGATCAGAACGTATT
GCCTGGAGTAGGGAACATCATCAAAAATGAAGCTCTCTTTGACAGTGGTCTCCACCCAGCTGTTAAAGTT
TGTCAATTAACAGATGAACAGATCCATCACCTCATGAAAATGATACGTGATTTCAGCATTCTCTTTTACA
GGTGCCGTAAAGCAGGACTTGCTCTCTCTAAACACTATAAGGTTTACAAGCGTCCCAATTGTGGTCAGTG
CCACTGCAGAATAACTGTGTGCCGCTTTGGGGACAATAACAGAATGACATATTTCTGTCCTCACTGTCAA
AAAGAAAATCCTCAACATGTTGACATATGCAAGCTACCGACTAGAAATACTATAATCAGTTGGACATCTA
GCAGGGTGGATCATGTTATGGACTCCGTGGCTCGGAAGTCGGAAGAGCACTGGACCTGTGTGGTGTGTAC
TTTAATCAATAAGCCCTCTTCTAAGGCATGTGATGCTTGCTTGACCTCAAGGCCTATTGATTCAGTGCTC
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ATACAGAAGTCAAGATCAACAGGAAAACTGCATTTGGAACTACAACTCTTGTCTTGACTGATTTTAGCAA
TAAATCCAGTACTTTGGAAAGAAAAACAAAGCAAAACCAGATACTAGATGAGGAGTTTCAAAACTCTCCT
CCTGCTAGTGTGTGTTTGAATGATATACAGCACCCCTCCAAGAAGACAACAAACGATATAACTCAACTAT
CCAGCAAAGTAAACATATCACCTACAATCAGTTCAGAATCTAAATTATTTAGTCCAGCACATAAAAAACC
GAAAACAGCCCACTACTCATCACCAGAGCTTAAAAGCTGCAACCCTGGATATTCTAACAGTGAACTTCAA
ATTAATATGACAGATGGCCCTCGTACCTTAAATCCTGACAGCCCTCGCTGCAGTAAACACAACCGCCTCT
GCATTCTCCGAGTTGTGAGGAAGGATGGGGAAAACAAGGGCAGGCAGTTTTATGCCTGTCCTCTACCTAG
AGAAGCACAATGTGGATTTTTTGAATGGGCAGATTTGTCCTTCCCATTCTGCAACCATGGCAAGCGTTCC
ACCATGAAAACAGTATTGAAGATTGGACCTAACAATGGAAAGAATTTTTTTGTGTGTCCTCTTGGGAAGG
AAAAACAATGCAATTTTTTCCAGTGGGCAGAAAATGGGCCAGGAATAAAAATTATTCCTGGATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206838 protein sequence
Red=Cloning site Green=Tags(s)

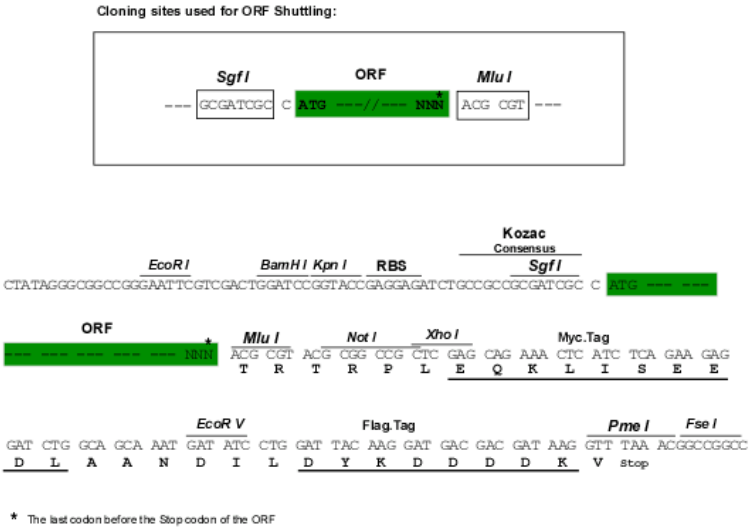
MVEGPGCTLNGEKIRARVLPGQAVTGVRGSALRSLQGRALRLAASTVVVSPQAAALNNDSSQNVLSLFNG
YVYSGVETLGKELFMYFGPKALRIHFGMKGFIMINPLEYKYKNGASRVLEVQLTKDLICFFDSSVELRNS
MESQQRIRMMKELDVCSPEFSFLRAESEVKKQKGRMLGDVLMDQNVLPGVGNIIKNEALFDSGLHPAVKV
CQLTDEQIHHLMKMIRDFSILFYRCRKAGLALSKHYKVYKRPNCGQCHCRITVCRFGDNNRMTYFCPHCQ
KENPQHVDICKLPTRNTIISWTSSRVDHVMDSVARKSEEHWTCVVCTLINKPSSKACDACLTSRPIDSVL
KSEENSTVFSHLMKYPCNTFGKPHTEVKINRKTAFGTTTLVLTDFSNKSSTLERKTKQNQILDEEFQNSP
PASVCLNDIQHPSKKTTNDITQLSSKVNISPTISSESKLFSPAHKKPKTAHYSSPELKSCNPGYSNSELQ
INMTDGPRTLNPDSPRCSKHNRLCILRVVRKDGENKGRQFYACPLPREAQCGFFEWADLSFPFCNHGKRS
TMKTVLKIGPNNGKNFFVCPLGKEKQCNFFQWAENGPGIKIIPGC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6277_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018248

ORF Size: 1815 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).

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: NM_018248.3

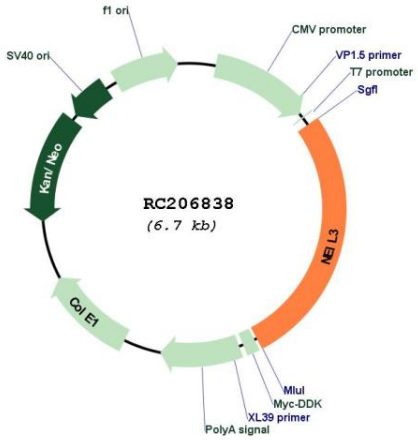
RefSeq Size: 2402 bp

RefSeq ORF: 1818 bp

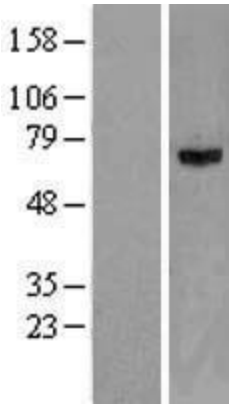
Locus ID: 55247

UniProt ID:	Q8TAT5
Cytogenetics:	4q34.3
Domains:	Fapy_DNA_glyco, zf-RanBP
Protein Families:	Druggable Genome
Protein Pathways:	Base excision repair
MW:	68 kDa
Gene Summary:	NEIL3 belongs to a class of DNA glycosylases homologous to the bacterial Fpg/Nei family. These glycosylases initiate the first step in base excision repair by cleaving bases damaged by reactive oxygen species and introducing a DNA strand break via the associated lyase reaction (Bandaru et al., 2002 [PubMed 12509226]).[supplied by OMIM, Mar 2008]

Product images:



Circular map for RC206838



Western blot validation of overexpression lysate (Cat# [LY413189]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206838 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).