

Product datasheet for **RR202174**

Nhej1 (NM_001014217) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nhej1 (NM_001014217) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Nhej1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RR202174 representing NM_001014217
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAAGTACAGCAAGGCCTGTTGATGCAGCCATGGGCATGGTTACAACCTTCTGAGAACTCACTCT
TGGCCAAGGCTTCTATCACCAAGCATGGTTATGCCTTGTGATTCGGATCTTCAACAGGTGTGGCATGA
ACAGGTGGACACTTTGGAGGTCAGCCAGCGAGCCAAGGAGCTGAACAAGCGCCTCACCGCTCCCCCTGCA
GCTTTTCTCCATCACTTGGATGAAGTGCTTCGCCACTGTTTAAAGATTCTGCCACCAGGATGCTGCTC
ACCTAGCAAAGCCACTTCTCCTGTGATCGTGGAGAGGAGTATTGATCCTGAGGTGCGGAGTGAGCT
CTCTGGTCTCCCCCTCAATTGGCATTTCCTACTGCTTCCAGCTAGTTCTTTACTGGTCTCTCAGCATTTG
ATTTGCTCTGATGGGTGTGAGCTTGGCATTGCACAGTCATGTGAGGGAGCTAGCAGCATTGCTTCGGA
TGAAGGACCTTGAGATCCAGGCCTACCAGGAGAGTGGGGCTGTGCTGAGCCGAGGTCGATTGAAGACAGA
GCCATTTGAAGAAAATCTTTCTTGAACAGTTTATGGTAGAGAAATGCCAGAGGCATGTGCTGTTGGT
GATGGAAGGCCATTTGCCATGAATCTGCAGAGCCTGTATGTGGCAGTCACAAAGCAGCAGGTCCAAGCCA
GGCAGAAGCATAAAGGCTCTGGAGAGCCTCAGACATCAAGCAGCACCTCCCCTCAAGGAAGTATAGCCA
GCTTCAGAACCAGCCAGAACAGCAGATCTCTCCACTCCAACCTCTCAGAGCCTGAATGTGAGCCTATG
GCTGCTTCAGGCCCTGTGCATAGAGCTCAGCTGGTAAAGGCCAAGAGGAAGAAGCCAGGGGACTCTTCA
GT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR202174 representing NM_001014217
 Red=Cloning site Green=Tags(s)

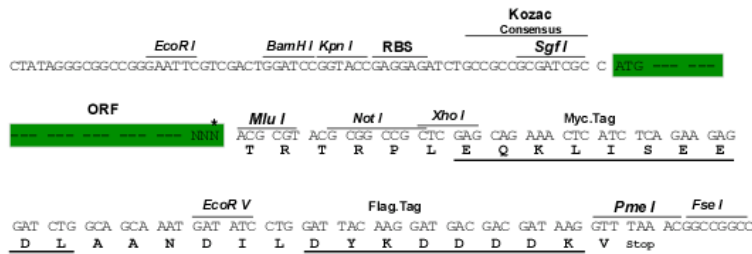
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MEELEQGLLMQPWAWLQLAENSLAKASITKHGYALLISDLQQVWHEQVDTLEVSQRAKELNKRLTAPPA
AFLHHLDEVLRLPFKDSAHQDAHPSKATFSCDRGEEVILRVRSEL SGLPFNWHFHCLPASSLLVSQHL
ICPLMGVSLALHSHVRELAALLRMKDLEIQAYQESGAVLSRGRLKTEPFEENSFLEQFMVEKLPEACAVG
DGRPFAMNLQSLYVAVTKQQVQARQKHKGSSEPQTSSSTSPQGTDSQLNQPEQQISPTPTLSEPECEPM
AASGPVHRAQLVKAKRKKPRGLFS
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001014217

ORF Size: 912 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_001014217.1](#), [NP_001014239.1](#)

RefSeq Size: 1445 bp

RefSeq ORF: 915 bp

Locus ID: 363251

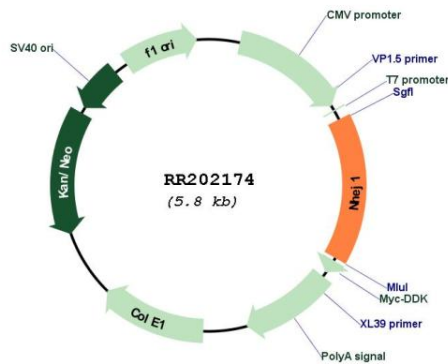
UniProt ID: [Q6AYI4](#)

Cytogenetics: 9q33

MW: 33.9 kDa

Gene Summary: DNA repair protein involved in DNA nonhomologous end joining (NHEJ) required for double-strand break (DSB) repair and V(D)J recombination. May serve as a bridge between XRCC4 and the other NHEJ factors located at DNA ends, or may participate in reconfiguration of the end bound NHEJ factors to allow XRCC4 access to the DNA termini. It may act in concert with XRCC6/XRCC5 (Ku) to stimulate XRCC4-mediated joining of blunt ends and several types of mismatched ends that are noncomplementary or partially complementary. Binds DNA in a length-dependent manner.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR202174