

## Product datasheet for **MR204061**

### **Nhej1 (NM\_029342) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Nhej1 (NM_029342) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nhej1
Synonyms:	1700029B21Rik; cernunnos; XLF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204061 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAAGAGCTAGAGCAAGACCTGTTGCTGCAGCCATGGGCATGGTTACAACCTGCGGAGAACTCACTCT  
TAGCCAAGGTGTCTATCACCAAGCACGGTTATGCCTTGCTGATTCGGATCTTCAACAGGTGTGGCATGA  
ACAGGTGGACACTTCGGTGGTCAGCCAGCGAGCCAAGGAGCTGAACAAGCGCCTCACTGCGCCTCCTGCA  
GCTTTGCTCTGTCACCTGGATGAAGCACTTCGCCACTGTTAAAGATTCTGCTCACCTAGCAAAGCTA  
CTTTCTCCTGTGACCGAGGAGAGGGACTGATCCTGCGGGTGCAGAGTGAGCTCTCGGGTCTTCCCTT  
CAGTTGGCATTTCACCTGTATTCCAGCTAGTTCCTCACTGGTCTCTCAGCATTTGATTCATCCTCTGATG  
GGTGTGAGCCTGGCACTGCAGAGTCATGTGAGGGAGCTAGCAGCATTGCTTCGGATGAAGGACCTTGAGA  
TCCAGGCCTACCAGGAGAGTGGGGCTGTGCTGAGCCGAAGTCGATTGAAGACAGAGCCATTTGAAGAAAA  
TTCTTTCTTGGAAACAGTTTATGGCAGAGAAATTGCCAGAGGCGTGTGCTGTTGGTGTGAAAGCCATTT  
GCCATGAGTCTGCAGAGTCTGTATGTGGCAGTTACAAAACAGCAGATCCAAGCAAGGCAGGCACATAAAG  
ACTCTGGAGAGACTCAGGCATCAAGCAGCACCTCCCCTCGAGGAAGTATAACCAGCCAGAAGAGCCGGT  
CTCCCTCCCTCCACCCTCTCAGAACCTGAATATGAGCCTGTGGCTGCTTCAGGCCCTATGCATAGAGCT  
CAGCTGGTGAAGTCCAAGAGGAAGAAGCCAGGGGACTTTCAGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204061 protein sequence  
 Red=Cloning site Green=Tags(s)

MEELEQDLLLQPWAWLQLAENSLAKVSITKHGYALLISDLQQVWHEQVDTSVVSQRAKELNKRLTAPPA  
 ALLCHLDEALRPLFKDSAHPKATFSCDRGEEGLILRVQSEL SGLPFSWHFHCIPASSSLVSQHLIHLPLM  
 GVSLALQSHVRELAALLRMKDLEIQAYQESGAVLSRSRLKTEPFEENSFLEQFMAEKLPEACAVGDGKPF  
 AMSLQSLYVAVTKQIQIARQAHKDSGETQASSSTSPPRGTDNQPEEPVSLPSTLSEPEYEPVAASGPMHRA  
 QLVKSKRKKPRGLFS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

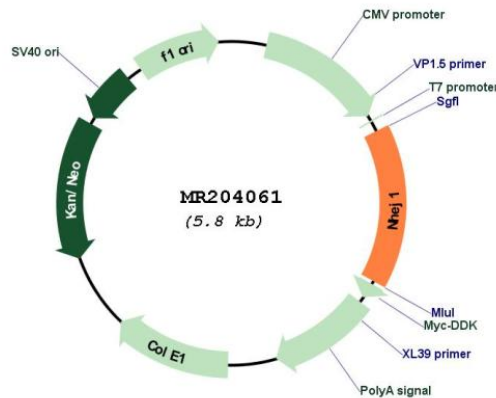
**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**



**ACCN:** NM\_029342

**ORF Size:** 888 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_029342.2</a>
<b>RefSeq Size:</b>	1415 bp
<b>RefSeq ORF:</b>	888 bp
<b>Locus ID:</b>	75570
<b>UniProt ID:</b>	<a href="#">Q3KNJ2</a>
<b>Cytogenetics:</b>	1 C4
<b>MW:</b>	32.7 kDa
<b>Gene Summary:</b>	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 (PubMed:17360556). Binds DNA in a length-dependent manner (By similarity). [UniProtKB/Swiss-Prot Function]