

Product datasheet for **MC222564**

Lig4 (NM_176953) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lig4 (NM_176953) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Lig4
Synonyms:	5830471N16Rik; tiny
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF:

>MC222564 representing NM_176953
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTCTCACAACTTCACAACTGTTGCAGCTCATGTCCCCTTTGCAGACTTATGTTCCACACTAG
 AACGGATACAGAAAGGTAAGACCGTGCAGAAAAATCAGGCACTTCAAGGAGTTTTTGGATTTCGTGGAG
 AAAATTTTCATGATGCCCTTCATAAGAACAGAAAGGACGTTACAGACTCTTTTTACCTGCAATGAGACTC
 ATTCTCCCCCAGTTAGAAAGAGAGAGGATGGCTTATGGAATCAAAGAAACCATGCTCGCTAAGCTTACA
 TCGAATTGCTGAACTTACCACGAGAAGGCAAGGATGCCAGAAGCTCCTCAATTACCGAACCCCCAGTGG
 AGCTCGCACGGATGCTGGGGACTTTGCCATGATTGCATACTTTGTTTTGAAGCCAAGGTGCTTACAGAAA
 GGAAGCTTAACCATACAGCAGGTAATGAACTCTTAGACTTAGTTGCCAGCAATAACTCTGGCAAAAAA
 AAGACCTAGTAAAAAGAGCCTTCTTCAGTTAATAACCCAGAGTTCAGCACTGGAGCAAAAAATGGCTGAT
 TCGCATGATTATCAAAGACTTAAAGCTTGGCATCAGTCAGCAACAATATTTTCCATTTCCACAATGAT
 GCAGTTGAGTTGCACAAGTCCACACAGATCTGGAAAAGGTCTGCAGGCAGCTGCATGACCCCTCTGTAG
 GGCTTAGTGACATCTCTATCACTCTGTTTTCTGCCTTAAAGCCAATGCTAGCTGCTGTAGCAGACGTGGA
 GCGTGTGGAGAAGGACATGAAGCAGCAGAGTTTCTACATCGAAACTAAGCTTGTGGTGAGCGCATGCAG
 ATGCACAAAGATGGCGCGCTGTACCCGTAATCTCCAGAAACGGTTACAATAACCGACCAAGTTTGGTG
 AATCTCCACAGGAAGGCTCTCTCACCCCATTTATTCACAATGCGTTCGGGACAGATGTGCAAGCGTGCAT
 CCTTGACGGTGAGATGATGGCCTACAACCAACAACACAGACTTTCATGCAGAAGGGGTCAAGTTTGTAT
 ATCAAAGGATGGTGAAGATTTGGCCTACAGACTTGTACTCTGTTTTGACGTACTGATGGTAAATA
 AGAAGAAGCTAGGGCGCAGACTTTAGGAAGAGGTATGAGATCCTTAGTAGCACTTTACACCCATACA
 AGGCCGCATAGAAATAGTGCAGAAAACTCAAGCTCATACAAGAAGGAAGTGTGGATGCATTAATGAT
 GCCATAGACAAGAGAGAAGGGGATCATGGTTAAACCCCTCTGTCCATTTACAAGCCAGACAAAAAGAG
 GTGAAGGGTGGCTAAAGATTAACCCAGAGTACGTCAGTGGACTAATGGATGAATTAGACGTCTAATTGT
 GGGGGGCTACTGGGGTAAAGGTTACAGAGGTGGCATGATGTCTCACTTTTTGTGTGACGTGGCAGAGACA
 CCACCTCTGGTACAGGCCATCTGTATCCACACTCTGTGCCGTGTGGGTCTGGTTACACCATGAAAAG
 AACTCTATGACCTGGGCTTGAATTTGGCAAAACTGGAAGCCTTTTCATAAGAAATCTCCACCAAGTAG
 CATTCTGTGTGGTACAGAGAAGCCGGAAGTGTACATAGAGCCTCAGAACTCTGTCATTGTTGATCAAG
 GCAGCTGAGATCGTCCCAGTGACATGTACAAGACTGGCTCCACCCTGCGCTTCCACGCATCGAAAAGA
 TCAGAGATGACAAAGAGTGGCAGCAATGTATGACTGGGTGACTTGGAGCAGCTGAGGGGGAAAGCATC
 TGGGAAGCTTGCCACGAAACACCTTCATGTAGGTGATGATGATGAACCTAGAGAAAAAAGCGGAAGCCC
 ATCTCAAAGACGAAGAAAGCCATTAGAATCATTGAACACTTAAAAGCACCAACCTTTCTAACGTAACA
 AAGTTTCCAATGTATTTGAAGATGTTGAGTTTTGTGTTATGAGTGGATTAGATGGTTATCCAAGGCTGA
 CCTAGAGAACAGAATTCAGAAATTCGGTGGTTATATAGTACAGAAATCCAGGCCGGATACATACTGTGTT
 ATTGCAGGTTCTGAGAACGTTAGAGTAAAAACATTTCTTCAGATAAAAAATGATGTTGTCAAGCCCG
 AGTGGCTTTTAGAGTGTTTAAGACAAAAACATGCGTGCCGTGGCAACCTCGCTTTATGATTCACATGTG
 CCCGTCGACAAAGCAGCATTTTGCCCGTGAGTATGACTGCTATGGTGATAGCTATTTTGTGACACAGAT
 TTGGATCAATTGAAAGAAGTGTCTAGGAATTAACCCAGTGAAGCAGCAGACTCCTGAAGAAATGGCCC
 CTGTGATTGCTGACTTAGAATGTCGTTATTCCTGGGACCACTCTCCTCTCAGTATGTTTCGACATTACAC
 CATTATTTGGACTTGTATGCTGTTATTAATGACTTGAGTTCCAGAATTGAAGCCACGAGATTAGGTATT
 ACAGCCCTTGAGCTGCGTTTTATGGAGCAAAGGTGGTTTCTGCTTATCTGAAGGGGTATCTCATGTTA
 TCATTGGGGAGGATCAGAGACGAGTTACTGACTTTAAAAATTCAGAAGAATGCTTAAGAAAAAGTTTAA
 AATCCTGCAAGAAAGTTGGGTGTCCGATTCAGTAGACAAGGGCGAACTGCAGGAGAAAACCAAGTATTG
 CTTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:	NM_176953
Insert Size:	2736 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:	<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_176953.3 , NP_795927.2
RefSeq Size:	4081 bp
RefSeq ORF:	2736 bp
Locus ID:	319583
UniProt ID:	Q8BTF7
Cytogenetics:	8 A1.1
Gene Summary:	Efficiently joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. Involved in DNA nonhomologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The LIG4-XRCC4 complex is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of LIG4. Binding of the LIG4-XRCC4 complex to DNA ends is dependent on the assembly of the DNA-dependent protein kinase complex DNA-PK to these DNA ends.[UniProtKB/Swiss-Prot Function]