

## Product datasheet for **SC337573**

### DNA Ligase I (LIG1) (NM\_001289064) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA Ligase I (LIG1) (NM_001289064) Human Untagged Clone
Tag:	Tag Free
Symbol:	LIG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001289064, the custom clone sequence may differ by one or more nucleotides

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ATGCAGCGAAGTATCATGTCATTTTTCCACCCCAAGAAAGAGGGTAAAGCAAAGAAGCCTGAGAAGGAGG
CATCCAATAGCAGCAGAGAGACGGAGCCCCTCCAAAGGCGGCACTGAAGGAGTGAATGGAGTGGTGTGTC
CGAGAGTGACTCTCCGGTGAAGAGGCCAGGGAGGAAGGCGGCCCGGGTCTGGGCAGCGAAGGGGAAGAG
GAGGATGAAGCCCTTAGCCCTGCTAAAGGCCAGAAGCCTGCCCTGGACTGCTCACAGGTCTCCCGCCCC
GTCCTGCCACATCTCTGAGAACAATGTTCCCTCTCTGACACCTCTCCCATGGACAGTTCCTCCATCAGG
GATTCCGAAGCGTCGCACAGAAGCAGAGACCCCGACGAAAGCGTTTCAGAGCCTGAGGTGGCCACGAAG
CAGGAAGTGCAGGAGGAGGAAGAGCAGACCAAGCCTCCCGCAGAGCTCCCAAGACGCTCAGCAGCTTCT
TCACCCCCCGGAAGCCAGCAGTCAAAAAAGAAGTGAAGGAAGAGGAGCCAGGGGCTCCAGGAAAGGAGGG
AGCTGCTGAGGGACCCCTGGATCCATCTGGTTACAATCCTGCCAAGAACAATATCATCCCGTGAAGAT
GCCTGCTGAAACCGGGCCAGAAGGTTCCCTACCTGGCTGTGGCCCGGACGTTTGAGAAGATCGAGGAGG
TGCTGCTCGGCTCCGGATGGTGGAGACGCTGAGCAACTTGCTGCGCTCCGTGGTGGCCCTGTCGCTCC
AGACCTCCTCCCTGTCTCTACCTCAGCCTCAACCACCTTGGGCCACCCAGCAGGGCCTGGAGCTTGGC
GTGGGTGATGGTGTCTTCTCAAGGCAGTGGCCAGGCCACAGGTCGGCAGCTGGAGTCCGTCCGGGCTG
AGGCAGCCGAGAAAGGCGACGTGGGGCTGGTGGCCGAGAACAGCCGACAGCCAGAGGCTCATGCTGCC
ACCACCTCCGCTCACTGCCTCCGGGGTCTTTCAGCAAGTCCGCGACATCGCCAGGCTCACTGGCAGTGTCT
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TCGCTAGTCCCTGAGCGGACGGCTGCGCCTTGGGCTGGCAGAGCAGTGGTGTGGTGGCTGCCCTCTCCCA
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GCAGAGGCCAGAAAGACGTGGCTGGAGGAGCAAGGCATGATCCTGAAGCAGACGTTCTGCGAGGTTCCCG
ACCTGGACCGAATTATCCCGTGTCTGGAGCAGCGCCTGGAACGCTCTCCCGGAGCAGTCAAGCTGAG
CCCAGGGATTCCCTGAAACCAATGTTGGCCATCCCACCCGGGCATCAGCGAGGTCCTGAAACGCTTT
GAGGAGGCAGCTTTCACCTGCGAATACAAATATGACGGGCAGAGGGCACAGATCCACGCCCTGGAAGGCG
GGGAGGTGAAGATCTTCAGCAGGAATCAGGAAGACAACACTGGGAAGTACCCGGACATCATCAGCCGCAT
CCCCAAGATTAAGTCCCATCGTCCATCCTTTCATCCTGGACACCGAAGCCGTGGCTTGGGACCGGGAA
AAGAAGCAGATCCAGCCATTCCAAGTGTCTACCACCCGCAACGCAAGGAGGTGGATGCGTCTGAGATCC
AGGTGCAGGTGTGTTGTACGCCTTCGACCTCATCTACCTCAATGGAGAGTCCCTGGTACGTGAGCCCT
TTCCCGGCCCGCAGCTGCTCCGGGAGAACTTTGTGGAGACAGAGGGCAGTGTGCTTCCGACCTCC
CTGGACACCAAGGACATCGAGCAGATCGCGAGTTCCTGGAGCAGTCAAGTAAAGACTCCTGCGAGGGGC
TGATGGTGAAGACCTGGATGTTGATGCCACCTACGAGATCGCCAAGAGATCGCACAACCTGGCTCAAGCT
GAAGAAGGACTACCTTGATGGCGTGGGTGACACCTGGACCTGGTGGTATCGGGCCTACCTGGGCCGG
GGGAAGCGGGCCGGCTACGGGGGCTTCTGCTGGCTCCTACGACGAGGACAGTGGAGAGTGCAGG
CCATATGCAAGCTTGAAGTGGCTTCAAGTATGAGGAGCTGGAGGAGCATCACCAGAGCCTCAAGGCGCT
GGTGTGCCCAGCCACGCCCTTACGTGCGGATAGATGGCGCTGTGATCCCGACCACTGGCTGGACCC
AGCGCTGTGTGGAGGTGAAGTGCCTGACCTCCCTCTCTCCATCTACCTGCTGCGCGGGGCTGG
TGGATAGTGACAAGGGCATCTCCCTTCGTTCCCTCGGTTTATTTCGAGTCCGTGAAGACAAGCAGCCGGA
GCAGGCCACCACAGTGTCTCAGGTGGCCTGTTTGTACCGAAGCAAAGTCAAGTTCAGAACCAACAAGGC
GAGGACTCAGGCTCTGACCCTGAAGATACCTACTAA
    
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**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001289064

**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).

<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>	<u><a href="#">NM_001289064.1</a></u> , <u><a href="#">NP_001275993.1</a></u>
<b>RefSeq Size:</b>	3206 bp
<b>RefSeq ORF:</b>	2556 bp
<b>Locus ID:</b>	3978
<b>UniProt ID:</b>	<u><a href="#">P18858</a></u>
<b>Cytogenetics:</b>	19q13.33
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Base excision repair, DNA replication, Mismatch repair, Nucleotide excision repair
<b>Gene Summary:</b>	This gene encodes a member of the ATP-dependent DNA ligase protein family. The encoded protein functions in DNA replication, recombination, and the base excision repair process. Mutations in this gene that lead to DNA ligase I deficiency result in immunodeficiency and increased sensitivity to DNA-damaging agents. Disruption of this gene may also be associated with a variety of cancers. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]