

# Active Recombinant Full Length Human LIG1 Protein, C-Flag-tagged

**Cat. No.** LIG1-196HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human LIG1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</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. |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Bio-activity</b>     | Enzyme activity                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Mass</b>   | 101.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>AA Sequence</b>      | MQRSIMSFFHPKKEGKAKKPEKEASNSSRETEPPPKAALKEWNGVSESDSPVKRP<br>GRKAARVLGSEGEE EDEALSPAKGQKPALDCSQVSPPRPATSPENNASLSDTSPM<br>DSSPSGIPKRRRTARKQLPKRTIQEVLEEQ SEDEDREAKRKKEEEEEETPKESLTEAE<br>VATEKEGEDGDQPTTPPKPLKTSKAETPTESVSEPEVATKQE LQEEEEQTKPPRA                                                                                                                                                                                                                     |

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PKTLSSFFTPRKPAVKKEVKEEPEGAPGKEGAAEGPLDPSGYNPAKNNYHPVEDAC  
 WKPQKQVPYLAVARTFEKIEEV SARLRMVETLSNLLRSVVALSPPDLLPVLYLSNLHL  
 GPPQQGLELGVG DGVLLKAVAQATGRQLESVRAEAAEKGDVGLVAENSRSTQRL  
 MLPPPPLTASGVFSKFRDIARLTGSAST AKKIDIIGLFLVACRHSERFIARSLSGRLR  
 LGLAEQSVLAALSQAVSLTPPGQEFPPAMVDAGKGKTAE ARKTWLEEQGMILKQTF  
 CEVPDLDRIPVLLHGLERLPEHCKLSPGIPLKPMLAHPTRGISEVLKRFEA AFTCE  
 YKYDGQRAQIHALEGGEVKIFSRNQEDNTGKYPDIISRIPKIKLPSVTSFILDTEAVAW  
 DREKK QIQPFQVLTRKRKEVDASEIQVQVCLYAFDLIYLNAGESLVREPLSRRRQLL  
 RENFVETEGEFVFATSLD TKDIEQIAEFLEQSVKDSCEGLMVKTLDVDATYEIAKRSH  
 NWLKLKKDYLDGVGDTLDLVVIGAYLGRGK RAGRYGGFLLASYDEDSEELQAICKL  
 GTGFSDEELEEHHQSLKALVLPSPRPYVRIDGAVIPDHWLDPSA VWEVKCADLSLS  
 PIYPAARGLVDSKIGISLRFPRFIRVREDKQPEQATTSAQVACLYRKQSQIQNQQGE  
 D  
 SGSDPEDTYTRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome                                                                                                                              |
| <b>Protein Pathways</b> | Base excision repair, DNA replication, Mismatch repair, Nucleotide excision repair                                                            |

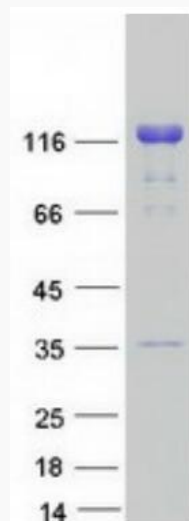
**Full Length**
**Full L.**

## GENE INFORMATION

**Gene Name** [LIG1 DNA ligase 1 \[ Homo sapiens \(human\) \]](#)
**Official Symbol** [LIG1](#)
**Synonyms** [LIG1](#); [IMD96](#); [hLig1](#)
**Gene ID** [3978](#)
**mRNA Refseq** [NM\\_000234.3](#)
**Protein Refseq** [NP\\_000225.1](#)
**MIM** [126391](#)
**UniProt ID** [P18858](#)
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Coomassie blue staining of purified LIG1 protein.