

Recombinant Human LIG3 Protein, His-tagged

Cat. No. LIG3-1520H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LIG3 Protein with His tag was expressed in E.coli.
Species	Human
Source	E.coli
Description	This gene is a member of the DNA ligase family. Each member of this family encodes a protein that catalyzes the joining of DNA ends but they each have a distinct role in DNA metabolism. The protein encoded by this gene is involved in excision repair and is located in both the mitochondria and nucleus, with translation initiation from the upstream start codon allowing for transport to the mitochondria and translation initiation from a downstream start codon allowing for transport to the nucleus. Additionally, alternate transcriptional splice variants, encoding different isoforms, have been characterized.
Molecular Mass	~103.6 kDa, reducing conditions
AA Sequence	MHHHHHMAEQRFCVDYAKRGTAGCKKCKEKIVKGVCRIGKVVPNPFSESGGDMK EWYHIKCMFEKLERARATTKKIEDLTELEGWEELEDNEKEQITQHIADLSSKAAGTPK KKAVVQAKLTTTGQVTSPVKGASFVTSTNPRKFSGFSAKPNNSGEAPSSPTPKRSL SSSKCDPRHKDCLLREFRKLCAMVADNPSYNTKTQIIQDFLRKGSAGDGFHGDVYL TVKLLLPGVIKTVYNLNDKQIVKLFSRIFNCNPDDMARDLEQGDVSETIRVFFEQSKS FPAAKSLTLIQEVDEFLLRLSKLTKEDEQQQALQDIASRCTANDLKCIIRLIKHDLM NSGAHVLDALDPNAYEAFKASRNLDVVERVLHNAQEVEKEPGQRRALSVQASL

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MTPVQPM LAEACKSVEYAMKKCPNGMFSEIKYDGERVQVHKNGDHFSYFSRSLKP
 VLPHKVAHF KDYIPQAFPGGHSMILDSEVLLIDNKTGKPLPFGTLGVHKKAAFQDANV
 CLFVFDCIYFNDVSLMDRPLCERRKFLHDNMVEIPNRIMFSEMKRVTKALDLADMITR
 VIQEGLEGLVLKDVKGTYEPGKRHWLKVKKDYLN EGAMADTADLVVLGAFYQGQSK
 GGMM SIFLMGCYDPGSQKWCTVTKCAGGHDDATLARLQNELDMVKISKDPSKIPS
 WLKVNKIYYPDFIVPDPKKA AVWEITGA EFSKSEAHTADGISIRFPRCTRIRDDKDWK
 SATNLPQLKELYQLSKEKADFTVVAGDEGSSTTGGSS EENKGPSGSAVSRKAPSKP
 SASTKKAEGKLSNSNSK DGNMQTAKPSAMKVGEKLATKSSPVKVGEKRKAADETL
 CQTKVLLDIFTGVRLYLPPSTPDFSRLRRYFVAFDGD LVQEFDMTSATHVLGSRDKN
 PAAQQVSPEWIWACIRKRRLVAPC

Purity >85%, by SDS-PAGE

Storage Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Concentration 0.11 mg/mL

Storage Buffer Supplied as a 0.2 µm filtered solution in PBS, pH 8.0.

GENE INFORMATION

Gene Name **LIG3 DNA ligase 3 [Homo sapiens (human)]**

Official Symbol **LIG3**

Synonyms LIG3; DNA ligase 3; LIG2; LIG3alpha; DNA ligase 3; ligase II, DNA, ATP-dependent; ligase III, DNA, ATP-dependent; polydeoxyribonucleotide synthase [ATP] 3; EC 6.5.1.1

Gene ID **3980**

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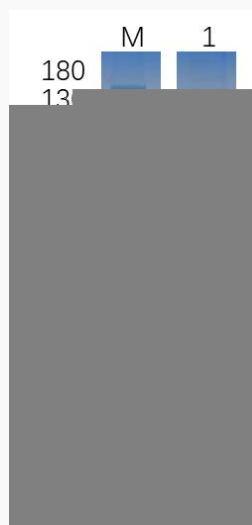
mRNA Refseq [NM_002311](#)

Protein Refseq [NP_002302](#)

MIM [600940](#)

UniProt ID [P49916](#)

SDS-PAGE



12% reducing SDS-PAGE analysis of purified LIG3 (~ 2 ug protein loaded)

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