

**LIG3 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16089b**

**Specification**

**LIG3 Antibody (C-term) - Product Information**

Application	WB, E
Primary Accession	<a href="#">P49916</a>
Other Accession	<a href="#">P97386</a> , <a href="#">NP_039269.2</a> , <a href="#">NP_002302.2</a>
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	112907
Antigen Region	793-822

**LIG3 Antibody (C-term) - Additional Information**

**Gene ID** 3980

**Other Names**

DNA ligase 3, DNA ligase III,  
 Polydeoxyribonucleotide synthase [ATP] 3,  
 LIG3

**Target/Specificity**

This LIG3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 793-822 amino acids from the C-terminal region of human LIG3.

**Dilution**

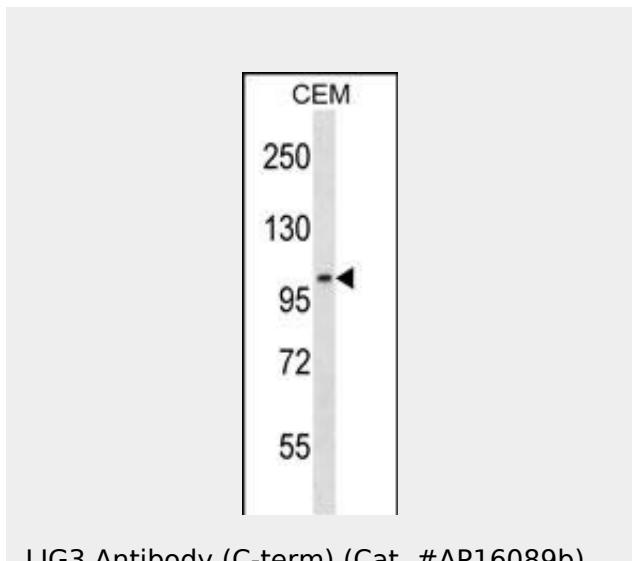
WB~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



LIG3 Antibody (C-term) (Cat. #AP16089b) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the LIG3 antibody detected the LIG3 protein (arrow).

**LIG3 Antibody (C-term) - Background**

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.

**LIG3 Antibody (C-term) - References**

Wang, W., et al. Nucleic Acids Res. (2010) In press :

**Precautions**

LIG3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**LIG3 Antibody (C-term) - Protein Information**

Arora, M., et al. Leukemia  
24(8):1470-1475(2010)  
Cotner-Gohara, E., et al. Biochemistry  
49(29):6165-6176(2010)  
Ho-Pun-Cheung, A., et al. Pharmacogenomics J.  
(2010) In press :  
Briggs, F.B., et al. Am. J. Epidemiol.  
172(2):217-224(2010)

**Name** LIG3

**Function**

Isoform 3 functions as heterodimer with DNA-repair protein XRCC1 in the nucleus and can correct defective DNA strand-break repair and sister chromatid exchange following treatment with ionizing radiation and alkylating agents. Isoform 1 is targeted to mitochondria, where it functions as DNA ligase in mitochondrial base-excision DNA repair (PubMed:<a href="http://www.uniprot.org/citations/10207110" target="\_blank">10207110</a>, PubMed:<a href="http://www.uniprot.org/citations/24674627" target="\_blank">24674627</a>).

**Cellular Location**

[Isoform 1]: Mitochondrion Note=Contains an N-terminal mitochondrial transit peptide  
[Isoform 3]: Nucleus. Note=Lacks the N-terminal mitochondrial transit peptide.

**Tissue Location**

Testis, thymus, prostate and heart.

**LIG3 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)