

LIG3 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16089b**Specification**

LIG3 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P49916](#)**LIG3 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 3980**Other Names**

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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LIG3 Antibody (C-term) Blocking Peptide - Protein Information**Name** LIG3**Function**

Isoform 3 functions as a 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 a DNA ligase in mitochondrial base-excision DNA repair (PubMed:10207110, PubMed:24674627).

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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

LIG3 Antibody (C-term) Blocking Peptide - Images

LIG3 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - References

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