

# DNA Ligase III Polyclonal Antibody

Catalog # AP69548

## Product Information

---

<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P49916</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	112907

## Additional Information

---

<b>Gene ID</b>	3980
<b>Other Names</b>	LIG3; DNA ligase 3; DNA ligase III; Polydeoxyribonucleotide synthase [ATP] 3
<b>Dilution</b>	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

---

<b>Name</b>	LIG3
<b>Function</b>	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: <a href="#">10207110</a> , PubMed: <a href="#">24674627</a> ).
<b>Cellular Location</b>	[Isoform 1]: Mitochondrion Note=Contains an N-terminal mitochondrial transit peptide [Isoform 3]: Nucleus. Note=Lacks the N-terminal mitochondrial transit peptide.
<b>Tissue Location</b>	Testis, thymus, prostate and heart.

## Background

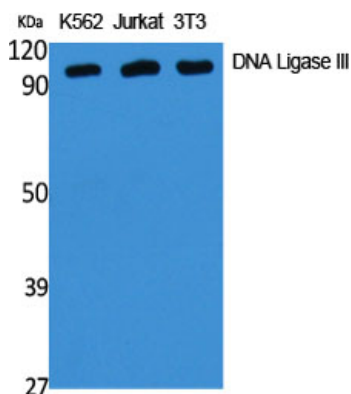
---

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

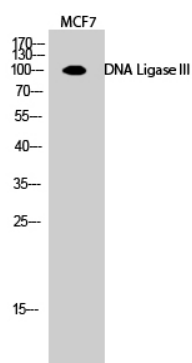
radiation and alkylating agents. Isoform 1 is targeted to mitochondria, where it functions as DNA ligase in mitochondrial base-excision DNA repair (PubMed:[10207110](#), PubMed:[24674627](#)).

## Images

---



Western Blot analysis of various cells using DNA Ligase III Polyclonal Antibody diluted at 1 : 1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Western Blot analysis of MCF7 cells using DNA Ligase III Polyclonal Antibody diluted at 1 : 1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.