

## DNA Ligase IV Polyclonal Antibody

### Description

<b>Product type</b>	Primary Antibody
<b>Code</b>	BT-AP02653
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Size</b>	20ul, 50ul, 100ul
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human DNA Ligase 4. AA range:616-665
<b>Mol wt</b>	103971
<b>Species reactivity</b>	Human
<b>Clonality</b>	Polyclonal
<b>Recommended application</b>	IHC-p, WB, ELISA
<b>Concentration</b>	1 mg/ml
<b>Full name</b>	DNA Ligase IV Antibody
<b>Synonyms</b>	LIG4; DNA ligase 4; DNA ligase IV; Polydeoxyribonucleotide synthase [ATP] 4

**This product is for research use only, not for use in human, therapeutic or diagnostic procedure.**

### Background

The protein encoded by LIG4 is a DNA ligase that joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. This protein is essential for V(D)J recombination and DNA double-strand break (DSB) repair through nonhomologous end joining (NHEJ). This protein forms a complex with the X-ray repair cross complementing protein 4 (XRCC4), and further interacts with the DNA-dependent protein kinase (DNA-PK). Both XRCC4 and DNA-PK are known to be required for NHEJ. The crystal structure of the complex formed by this protein and XRCC4 has been resolved. Defects in this gene are the cause of LIG4 syndrome. Alternatively spliced transcript variants encoding the same protein have been observed.

### Recommended Dilution

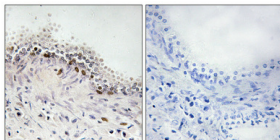
WB: 1: 500 - 2000

ELISA: 1: 20000

IHC: 1: 100 - 1: 300

Not yet tested in other applications.

### Images



Immunohistochemical analysis of paraffin-embedded Human prostate cancer. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.

### Storage

-20°C for one year