

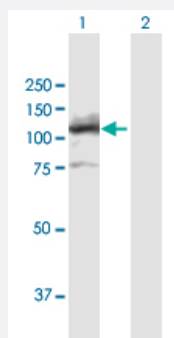
MaxPab®

# LIG4 purified MaxPab mouse polyclonal antibody (B01P)

Catalog # H00003981-B01P

Size 50 ug

## Applications



### Western Blot (Transfected lysate)

Western Blot analysis of LIG4 expression in transfected 293T cell line ([H00003981-T01](#)) by LIG4 MaxPab polyclonal antibody.

Lane 1: LIG4 transfected lysate(100.21 KDa).

Lane 2: Non-transfected lysate.

## Specification

### Product Description

Mouse polyclonal antibody raised against a full-length human LIG4 protein.

### Immunogen

LIG4 (ABM86612.1, 1 a.a. ~ 911 a.a) full-length human protein.

### Sequence

MAASQTSQTVASHVPFADLCSTLERIQKSKGRAEKIRHFREFLD SWRKFDALHKNHKDVTDSFY  
PAMRLILPQLERERMAYGIKETMLAKLYIELNLPRDGKDALKLLNYRTPTGTHGDAGDFAMIA YFVL  
KPRCLQKGS LTQQVNDLLDSIASNNSAKRKDLIKSLLQLITQSSALEQKWLRMIKDLKLGVSQQ  
TIFSVFHNDAAELHNVTTDLEKVCRQLHDPSVGLSDISITLFSAFKPMLAAIADIEHIEKDMKHQSFYI  
ETKLDGERMQMHKDG DVYKYFSRNGYNYTDQFGASPTEGSLTPFIHNAFKADIQICILDGEMMAYN  
PNTQTFMQKGTKFDIKRMVEDSDLQTCYCVFDVLMVNNKKLGHETLRKRYEILSSIFTPIPGRIEMQ  
KTQAHTKNEVIDALNEAIDKREEGIMVKQPLSNYPDKRGEGWLKIKPEYVSGLMDELDILVGGYW  
GKGSRGGMMSHFLCAVAEKPPPG EKPSVFHTLSRVGSGCTMKELYDLGLKLAKYWKP FHRKAP  
PSSILCGTEKPEVYIEPCNSVIVQIKAAEIVPSDMYKTGCTLRFPRIEKIRDDKEWHECMTLDDLEQL  
RGKASGKLASKHLYIGGDDEPQEKKRKAAPKMKKVIGIIEHLKAPNL TNVNKISNIFEDVEFCVMSG  
TDSQPKPDLENRIA EFGGYVQNP GPD TYCVIAGSENIRVKNIILSNKHDVVKPAWLLECFKTKSFV  
PWQPRFMIHMC PSTKEHFAREYDCYGDSYFIDTDLNQLKEVFSGIKNSNEQTPEEMASLIADLEYR  
YSWDCSPLSMFRRHTVYLD SYAVINDLSTKNEGTRLAIKALELRFHGAKVVSC LAEGVSHVIIGED  
HSRVADFKAFRRTFKRKFKILKESWVTDSIDKCELQEENQYLI

### Host

Mouse

### Reactivity

Human

|                               |                                                                          |
|-------------------------------|--------------------------------------------------------------------------|
| Interspecies Antigen Sequence | Mouse (87); Rat (86)                                                     |
| Quality Control Testing       | Antibody reactive against mammalian transfected lysate.                  |
| Storage Buffer                | In 1x PBS, pH 7.4                                                        |
| Storage Instruction           | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing. |

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[Protocol Download](#)

## Gene Info — LIG4

|                     |                                                                      |
|---------------------|----------------------------------------------------------------------|
| Entrez GeneID       | <a href="#">3981</a>                                                 |
| GeneBank Accession# | <a href="#">DQ895686.2</a>                                           |
| Protein Accession#  | <a href="#">ABM86612.1</a>                                           |
| Gene Name           | LIG4                                                                 |
| Gene Alias          | -                                                                    |
| Gene Description    | ligase IV, DNA, ATP-dependent                                        |
| Omim ID             | <a href="#">254500</a> <a href="#">601837</a> <a href="#">606593</a> |
| Gene Ontology       | <a href="#">Hyperlink</a>                                            |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Summary | The protein encoded by this gene 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. [provided by RefSeq] |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Other Designations**

DNA joinase|DNA ligase IV|DNA repair enzyme|polydeoxyribonucleotide synthase [ATP] 4|polynucleotide ligase|sealase

**Pathway**

- [Non-homologous end-joining](#)

**Disease**

- [Adenocarcinoma](#)
- [Ascariasis](#)
- [Asthma](#)
- [Ataxia telangiectasia](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Colorectal Neoplasms](#)
- [DNA Damage](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Genomic Instability](#)
- [Glioma](#)
- [Head and Neck Neoplasms](#)
- [Hematologic Diseases](#)
- [Hodgkin Disease](#)
- [Immunologic Deficiency Syndromes](#)
- [Kidney Failure](#)

- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Mouth Neoplasms](#)
- [Multiple Myeloma](#)
- [Multiple Sclerosis](#)
- [Neoplasm Invasiveness](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Occupational Diseases](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Precancerous Conditions](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Radiodermatitis](#)
- [Severe Combined Immunodeficiency](#)
- [Skin Neoplasms](#)

- [Stomach Neoplasms](#)
- [Thyroid Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)