

LIG4 rabbit monoclonal antibody

Catalog # H00003981-K Size 100 ug x up to 3

Specification

Product Description	Rabbit monoclonal antibody raised against a human LIG4 peptide using ARM Technology.
Immunogen	A synthetic peptide of human LIG4 is used for rabbit immunization. Customer or Abnova will decide on the preferred peptide sequence.
Host	Rabbit
Library Construction	Non-fusion antibody library from rabbit spleen (ARM Technology).
Expression	Overexpression vector and transfection into 293H cell line.
Reactivity	Human
Purification	Protein A
Isotype	IgG
Quality Control Testing	Antibody reactive against human LIG4 peptide by ELISA and mammalian transfected lysate by Western Blot.
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Deliverable	Up to three rabbit IgG clones of 100 ug each will be delivered to customer.
Note	1. Customer may provide cell or tissue lysate for antibody screening. 2. Rabbit monoclonal antibody generated by ARM technology is amenable to antibody engineering including F(ab) ₂ , IgG, scFv and different Fc and non-Fc conjugates per customer request.

Applications

- Western Blot (Transfected lysate)

[Protocol Download](#)

- ELISA

Gene Info — LIG4

Entrez GeneID [3981](#)

GeneBank Accession# [LIG4](#)

Gene Name LIG4

Gene Alias -

Gene Description ligase IV, DNA, ATP-dependent

Omim ID [254500](#) [601837](#) [606593](#)

Gene Ontology [Hyperlink](#)

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](#)