

LIG4 monoclonal antibody (M01A), clone 1A4

Catalog # H00003981-M01A

Size 200 uL

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant LIG4.
Immunogen	LIG4 (AAH37491, 802 a.a. ~ 911 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	RYSWDCSPLSMFRRHTVYLD SYAVINDLSTKNEGTRLAIKALELRFHGAKVVSCLAEGVSHVIIGE DHSRVADFKAFRRTFKRKFKILKESWVTDSIDKCELQEENQYLI
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (78); Rat (77)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein.
Storage Buffer	In ascites fluid
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- ELISA

Gene Info — LIG4

Entrez GeneID [3981](#)GeneBank Accession# [BC037491](#)

Protein Accession#	AAH37491
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](#)