

**DATASHEET**

**DNA Ligase 4 Rabbit Monoclonal Antibody(C1836)**

CAT. NO. AMA01448

**KEY FEATURES**

Target	DNA Ligase 4	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

DNA ligase involved in DNA non-homologous end joining (NHEJ); required for double-strand break (DSB) repair and V(D)J recombination ; required for double-strand break (DSB) repair and V(D)J recombination . Catalyzes the NHEJ ligation step of the broken DNA during DSB repair by resealing the DNA breaks after the gap filling is completed . Joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction . LIG4 is mechanistically flexible: it can ligate nicks as well as compatible DNA overhangs alone, while in the presence of XRCC4, it can ligate ends with 2-nucleotides (nt) microhomology and 1-nt gaps . Forms a subcomplex with XRCC4; the LIG4-XRCC4 subcomplex is responsible for the NHEJ ligation step and XRCC4 enhances the joining activity of LIG4 .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
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\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

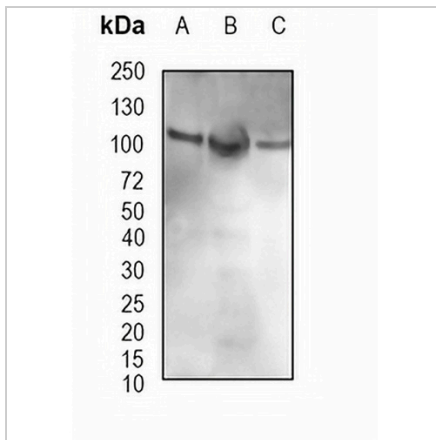
Description	Recombinant rabbit monoclonal antibody to DNA Ligase 4
Specificity	Recognizes endogenous levels of DNA Ligase 4 protein
Antibody Type	Primary antibody, Recombinant
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within human DNA Ligase 4 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 103 kD; Observed: 103 kD
Form/Buffer	Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.
Alternative Names	DNA ligase 4; DNA ligase IV; Polydeoxyribonucleotide synthase [ATP] 4
Gene Symbol	LIG4
Entrez Gene	3981(Human); 319583(Mouse)
SwissProt	P49917(Human); Q8BTF7(Mouse)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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**DATA**

Western blot analysis of DNA Ligase 4 expression in mouse testis (A), rat kidney (B), rat testis (C) whole cell lysates. (Predicted band size: 103 kD; Observed band size: 103 kD)

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.