

产品名称: DNA Ligase IV (18K10) Rabbit Monoclonal Antibody
产品货号: AMRe10049



产品概述 (Summary)

产品名称 (Production Name)	DNA Ligase IV (18K10) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,IF-P
种属反应性 (Reactivity)	Human

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% protective protein.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	LIG4
别名 (Alternative Names)	DNA joinase; DNA ligase 4; DNA ligase IV; DNA repair enzyme; LIG4; LIG4S; Ligase IV;
基因 ID (Gene ID)	3981.0
蛋白 ID (SwissProt ID)	P49917.Recombinant protein of human DNA Ligase IV

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:20-1:100,ICC/IF 1:20-1:50,IF-P 1:20-1:50
蛋白分子量 (Molecular Weight)	104kDa

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研究背景 (Background)

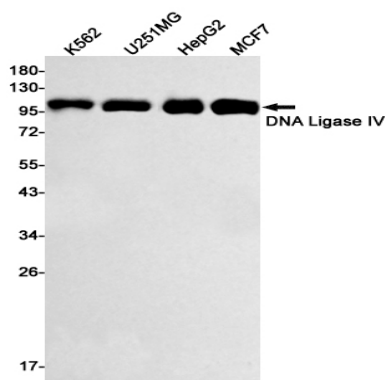
Efficiently joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. DNA ligase involved in DNA non-homologous end joining (NHEJ); required for double-strand break (DSB) repair and V(D)J recombination (PubMed: [8798671](http://www.uniprot.org/citations/8798671), PubMed: [9242410](http://www.uniprot.org/citations/9242410), PubMed: [9809069](http://www.uniprot.org/citations/9809069), PubMed: [12517771](http://www.uniprot.org/citations/12517771), PubMed: [17290226](http://www.uniprot.org/citations/17290226)). Catalyzes the NHEJ ligation step of the broken DNA during DSB repair by resealing the DNA breaks after the gap filling is completed (PubMed: [9242410](http://www.uniprot.org/citations/9242410), PubMed: [9809069](http://www.uniprot.org/citations/9809069), PubMed: [12517771](http://www.uniprot.org/citations/12517771), PubMed: [17290226](http://www.uniprot.org/citations/17290226)). Joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction (PubMed: [9242410](http://www.uniprot.org/citations/9242410), PubMed: [9809069](http://www.uniprot.org/citations/9809069), PubMed: [12517771](http://www.uniprot.org/citations/12517771), PubMed: [17290226](http://www.uniprot.org/citations/17290226)). 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 (PubMed: [17290226](http://www.uniprot.org/citations/17290226)). Forms a subcomplex with XRCC4; the LIG4-XRCC4 subcomplex is responsible for the NHEJ ligation step and XRCC4 enhances the joining activity of LIG4 (PubMed: [9242410](http://www.uniprot.org/citations/9242410), PubMed: [9809069](http://www.uniprot.org/citations/9809069)). Binding of the LIG4-XRCC4 complex to DNA ends is dependent on the assembly of the DNA-dependent protein kinase complex DNA-PK to these DNA ends (PubMed: [10854421](http://www.uniprot.org/citations/10854421)). LIG4 regulates nuclear localization of XRCC4 (PubMed: [24984242](http://www.uniprot.org/citations/24984242)).

研究领域 (Research Area)

Epigenetics and Nuclear Signaling

图片 (Image Data)

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Western blot detection of DNA Ligase IV in K562,U251MG,HepG2,MCF7 cell lysates using DNA Ligase IV antibody(1:500 diluted).

注意事项 (Note)

For research use only .