Nature Biosciences

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DNA Ligase IV Rabbit mAb[4W95]

Cat NO. :A25690

Information:

Applications	Reactivity:	UniProt ID:	MW(kDa)	Host	Isotype	Size
WB	H	P49917	103kDa	Rabbit	IgG	50ul 100ul,200ul

Applications detail:

Application	Dilution
WB	1:1000-2000

The optimal dilutions should be determined by the end user

Conjugate:

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

Purification:

Protein A purification

Specificity:

Antibody is produced by immunizing animals with a synthetic peptide of human DNA Ligase IV.

Storage buffer and conditions:

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol（buffer）.

Shipped at 4°C. Store at-20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

Tissue specificity:

Testis, thymus, prostate and heart..

Subcellular location:

Nucleus.

Function:

DNA ligase involved in DNA non-homologous end joining (NHEJ),required for double-strand break (DSB) repair and V(D)J recombination (PubMed:8798671, PubMed:9242410, PubMed:9809069, PubMed:12517771, PubMed: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, PubMed:9809069, PubMed:12517771, PubMed:17290226). Joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction (PubMed:9242410, PubMed:9809069, PubMed:12517771, PubMed:17290226). LIG4 is mechanistically flexible: it can ligate nicks as well as compatible DNA overhangs alone, while in the presence of XRCC4, it can

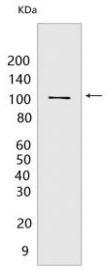
Introduction: **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/ Immunofluorescence **F:** Flow Cytometry

Cross Reactivity: **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Hr:** horse

ligate ends with 2-nucleotides (nt) microhomology and 1-nt gaps (PubMed: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, PubMed: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). LIG4 regulates nuclear localization of XRCC4 (PubMed:24984242)..

Validation Data：

DNA Ligase IV Rabbit mAb[4W95] Images



Western blot（SDS PAGE） analysis of extracts from HeLa cells.Using DNA Ligase IV Rabbit mAb IgG [4W95] at dilution of 1:1000 incubated at 4℃ over night.

View more information on http://naturebios.com

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.