

Rabbit LIG4 Polyclonal Antibody | anti-LIG4 antibody

LIG4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326353	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

LIG4; Polyclonal Antibody; LIG4 Antibody; DNA ligase IV ATP dependent; DNA joinase; DNA ligase 4; DNA ligase IV; DNA repair enzyme; DNLI4_HUMAN; LIG 4; LIG4S; Ligase IV; Ligase IV DNA ATP dependent; Polydeoxyribonucleotide synthase [ATP] 4; Polydeoxyribonucleotide synthase 4; Polydeoxyribonucleotide synthase; Polynucleotide ligase; Sealase; anti-LIG4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	LIG4 antibody detects endogenous levels of total LIG4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	911
Applicable Applications for anti-LIG4 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human LIG4
Subcellular Location	Nucleus.
Tissue Specificity	Testis, thymus, prostate and heart.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (82%), Zebrafish (82%), Bovine (82%), Horse (100%), Rabbit (91%), Dog (100%), Chicken (100%), Xenopus (91%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA326353 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326353 at 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of Mouse heart lysate, using LIG4 Antibody. The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)

Western blot analysis of extracts from Helix aspersa, using LIG4 Antibody. Lane 1 was treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-LIG4 antibody

Description: Two major pathways, homologous recombination (HR) and nonhomologous end joining (NHEJ), counteract one of the most toxic lesions, the DSB. The core protein complex mediating NHEJ in mammals includes DNA ligase IV (Lig4). Lig4 belongs to an ATP-dependent DNA ligase family, and joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. The complex Lig4-XRCC4 is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of Lig4.

Function: 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. The LIG4-XRCC4 complex is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of LIG4. 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.

Subunit Structure: Interacts with XRCC4. The LIG4-XRCC4 complex has probably a 1:2 stoichiometry. The LIG4-XRCC4 complex associates in a DNA-dependent manner with the DNA-PK complex composed of PRKDC, XRCC6/Ku70 and XRCC5/Ku86 to form the core non-homologous end joining (NHEJ) complex. Additional components of the NHEJ complex include NHEJ1/XLF and PAXX. Interacts with APLF.

Similarity: Belongs to the ATP-dependent DNA ligase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	148539894
NCBI GeneID	3981
NCBI Accession #	NP_001091738.1
NCBI GenBank Nucleotide #	NM_001098268.1
UniProt Accession #	P49917; Q8IY66; Q8TEU5
Molecular Weight	Observed: 104 kDa Predicted: 104 kDa
NCBI Official Full Name	DNA ligase 4 isoform 1
NCBI Official Synonym Full Names	DNA ligase 4
NCBI Official Symbol	LIG4
NCBI Official Synonym Symbols	LIG4S
NCBI Protein Information	DNA ligase 4
UniProt Protein Name	DNA ligase 4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/lig4-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326353>