

Product datasheet for **AP06802PU-N**

DNA Ligase IV (LIG4) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections 1/50-1/200. Immunofluorescence: 1/50-1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 600-650 of Human DNA Ligase IV.
Specificity:	This antibody detects endogenous levels of DNA Ligase IV protein. (region surrounding Gly619)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	104 kDa
Gene Name:	DNA ligase 4
Database Link:	Entrez Gene 3981 Human P49917



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Background:

The X-ray repair cross-complementing protein XRCC4 and DNA Ligase IV are essential for repairing double-strand breaks in DNA. These proteins form a critical complex consisting of two molecules of each protein that preferentially bind DNA with nicks or broken ends. As an obligate accessory molecule, XRCC4 binds to DNA Ligase IV and enhances its joining activity. The XRCC4/ DNA Ligase IV complex is also involved in V(D)J recombination. V(D)J recombination occurs in normal development of the adaptive immune system and involves the formation of a double-strand break intermediate. Deletions of either DNA Ligase IV or XRCC4 inhibit the completion of V(D)J recombination, resulting in a high incidence of apoptosis in the developing nervous system and a block in B and T cell maturation.

Synonyms:

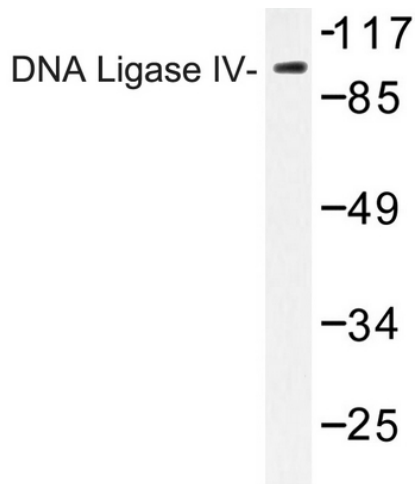
LIG4, EC=6.5.1.1, DNA ligase IV

Protein Families:

Druggable Genome

Protein Pathways:

Non-homologous end-joining

Product images:

Western blot analysis of DNA Ligase IV Antibody in extracts from Jurkat cells.