

Product datasheet for **AP20546PU-M**

DNA Ligase I (LIG1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of DNA Ligase I protein. (region surrounding Glu139)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
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:	102,125 kDa
Gene Name:	DNA ligase 1
Database Link:	<u>Entrez Gene 3978 Human P18858</u>



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Background:

Eukaryotic DNA ligases are ATP-dependent enzymes that catalyse the joining of single and double-strand DNA breaks, which is an essential final step in DNA replication, recombination and repair. Four biochemically distinct DNA ligases, termed ligases I-IV, have been identified in mammalian cells. DNA ligase I is functionally homologous to the DNA ligase encoded by the *Saccharomyces cerevisiae* Cdc9 gene. The joining of Okazaki fragments during lagging strand DNA replication in mammalian cells is due to DNA ligase I. A combination of DNA polymerase epsilon, PCNA, replication factor C, replication protein A, and DNA ligase I is well-suited to the task of creating nucleotide excision repair patches.

Synonyms:

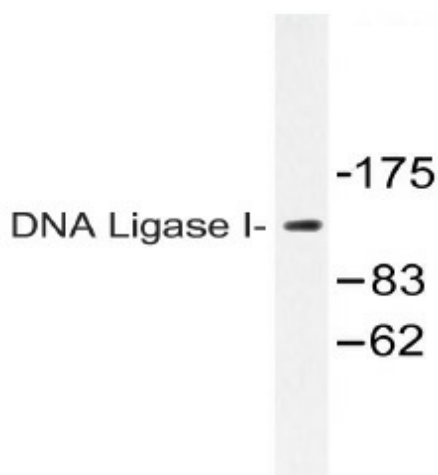
LIG1, LIG-1, DNA ligase 1, EC=6.5.1.1, DNA ligase I

Protein Families:

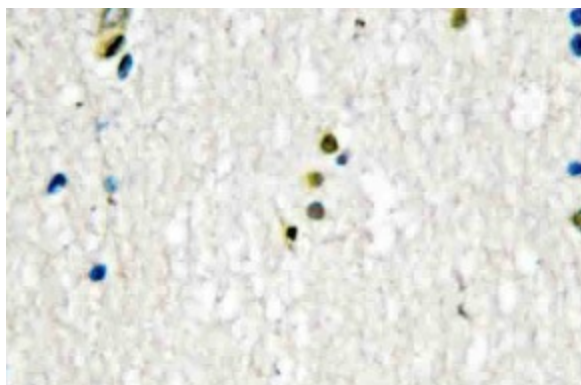
Druggable Genome

Protein Pathways:

Base excision repair, DNA replication, Mismatch repair, Nucleotide excision repair

Product images:


Western blot (WB) analysis of DNA Ligase I antibody (Cat.-No.: [AP20546PU-N]) in extracts from HT-29 cells.



Immunohistochemistry (IHC) analyzes of DNA Ligase I antibody (Cat.-No.: [AP20546PU-N]) in paraffin-embedded human brain tissue.