

Polyclonal Antibody to DNA ligase 1 - Aff - Purified

Alternate names:	DNA ligase 1, DNA ligase I, EC=6.5.1.1, LIG-1, LIG1, Polydeoxyribonucleotide synthase [ATP] 1
Catalog No.:	TA305925
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
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 <i>Saccharomyces cerevisiae</i> Cdc9 gene. The joining of Okazaki fragments during lagging strand DNA replication in mammalian cells is due to DNA ligase I.
Uniprot ID:	P18858
NCBI:	NP_000225.1
GeneID:	3978
Host:	Goat
Immunogen:	Peptide from the internal region (near C-Terminus) of the protein sequence according to NP_000225.1 AA Sequence: C-RVREDKQPEQATT
Format:	State: Liquid Ig fraction Purification: Ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide Buffer System: Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin
Applications:	Peptide ELISA: 1:16000 (limit dilution). Western blot: 0.1-0.3µg/ml. Approx 125kDa band observed in nuclear lysates of cell line HeLa (calculated MW of 102kDa according to NP_000225.1). The observed molecular weight corresponds to earlier findings with different antibodies from other commercial sources. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody detects DNA ligase 1 (Internal).
Species Reactivity:	Tested: Human Expected from sequence similarity: Rat
Storage:	Store at 2 - 8 °C up to one week or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings: Ferrari G, Rossi R, Arosio D, Vindigni A, Biamonti G, Montecucco A: Cell cycle-dependent phosphorylation of human DNA ligase I at the cyclin-dependent kinase sites. J. Biol. Chem. 2003 Sep 278 (39): 37761-7. PMID: 12851383

Pictures: TA305925 (0.1ug/ml) staining of HeLa nuclear lysate (35ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

