DNA Ligase from T4-infected Escherichia coli

Catalog Number: D2886
Storage Temperature: –20 °C

EC 6.5.1.1
CAS RN: 9015-85-4
Synonyms: T4 DNA Ligase, Polynucleotide Ligase, Polydeoxyribonucleotide Synthase

Product Description
Ligases catalyze the formation of phosphodiester bonds between 3'-hydroxyl ends and 5'-phosphate ends of DNA or RNA forming longer nucleic acid segments. They act on blunt ends and cohesive ends of double-stranded DNA as well as repairing breaks (nicks) in one strand of double-stranded DNA.

T4 DNA Ligase may be used for the following:

- Ligation of blunt ended or cohesive DNA fragments
- Ligation of cloning vector and restriction insert fragments
- Seal nicks in double-stranded DNA and RNA, or DNA/RNA hybrids
- Couple RNA single strands by bridging oligonucleotide adapters

T4 DNA Ligase is inactivated by heating at 65 °C for 10 minutes.

T4 DNA Ligase is supplied in a solution containing 10 mM Tris-HCl, pH 7.5, with 50 mM KCl, 1 mM DTT, and 50% (v/v) glycerol.

Specific activity: 4,000 Weiss units/ml

Unit definition: One Weiss unit is defined as the amount of enzyme required to catalyze the exchange of 1 nmole of 32P from pyrophosphate into ATP as Norit®-absorbable material in 20 minutes at 37 °C.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store T4 DNA Ligase at –20 °C. Do not store in a frost-free freezer. The frequent freeze-thaw cycles may decrease enzyme activity.

Briefly centrifuge storage container before opening to improve recovery of product.

Reference

Norit is a registered trademark of Norit N.V.

RC,KAA,JWM,MAM 02/12-1