

Datasheet for ABIN3188192

E. coli DNA Ligase

Overview

Quantity: 1000 U

Application: Ligation (Lig)

Product Details

Characteristics: E.coli DNA Ligase is an NAD⁺-dependent enzyme that catalyzes the formation of a phosphodiester bond between cohesive 3'-hydroxyl and 5'-phosphoryl termini of double-stranded DNA (dsDNA). This enzyme is also active on nicked DNA but is not effective for the formation of DNA-RNA or RNA-RNA hybrids.

Components: Enzyme supplied with 10X Reaction Buffer

Unit Definition: One unit is defined as the amount of E. coli DNA Ligase that is required to give 50% ligation of HindIII-digested λ DNA in a total reaction volume of 20 µl in 30 minutes at 16°C in 1X E.coli DNA Ligase Reaction Buffer (concentration of 5' DNA termini is 0.12 µM [300 µg/ml]).

Application Details

Comment:

- Ligation of dsDNA with cohesive termini
- cDNA cloning of products from second strand cDNA synthesis experiments
- Alternative to T4 DNA Ligase when bluntend ligation is not required
- For ligation of bluntend fragments use T4 DNA Ligase (abm Cat. No. G467)

Restrictions: For Research Use only

Handling

Concentration: 10 U/µL

Buffer: 50 mM Tris-HCl (pH 7.5), 1 mM EDTA, 1 mM DTT, 200 mM NaCl, and 50 % (v/v) Glycerol.

Storage: -20 °C

Publications

Product cited in: Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)