

T4 DNA Ligase

CATALOG #: 9101-250

AMOUNT: 250 units

LOT #: _____

UNIT DEFINITION:

One unit of T4 DNA ligase is the amount of enzyme activity required to ligate EcoR I digested 1.0 µg of plasmid DNA in 5 minutes at 20°C in a 20 µl Reaction.

PROPERTIES:

T4 DNA ligase catalyzes the formation of phosphodiester bonds between 5'-phosphate and 3'-hydroxy ends of double-stranded DNA. Single stranded nicks in double-stranded DNA are also closed by T4 DNA ligase. T4 DNA ligase needs ATP as co-factor.

APPLICATION: Ligate double-stranded nucleic acid fragments.

CONCENTRATION: 5 units/µl

PURITY:

Tested for the absence of endonuclease and exonuclease activity, with both double- and single-stranded DNA.

REACTION CONDITIONS:

66 mM Tris-HCl (pH 7.6), 7.5% PEG 6000, 10 mM MgCl₂, 1 mM DTT, 1 mM ATP, 0.1 µg DNA, and 1 unit enzyme in a 20 µl volume. For plasmid ligations, incubate 5 min at room temperature.

STORAGE BUFFER:

20 mM Tris-HCl, pH 7.5, 50 mM KCl, 0.1 mM EDTA, 5 mM DTT, 50% glycerol (v/v).

STORAGE CONDITIONS: -80°C

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- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents

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- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

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- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

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- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

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