

PRODUCT: 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 EcoRI 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: -20°C

NOTE: For Research Use Only! Not to be used in human.

FEATURED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents

Cell Fractionation System

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

Cell Proliferation & Senescence

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

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit

Growth Factors and Cytokines