TREVIGEN® Product Data

For Research Use Only. Not For Use In Diagnostic Procedures

Terminal Deoxynucleotidyl Transferase (TdT) Enzyme

Catalog #: 9510-01K-EB

Contents: TdT Enzyme (cat# 9510-01K-01) **Size:** 1000 Units
10X TdT Labeling Buffer (cat# 4817-60-02) 20 ml

Description: Terminal deoxynucleotidyl transferase (TdT) is a template independent polymerase that catalyzes the addition of deoxynucleotides to the 3' hydroxyl terminus of DNA. TdT is the enzyme of choice for Trevigen's **TACS™ *In Situ* Apoptosis Detection Kits** which utilize TdT to incorporate biotinylated nucleotides into the fragmented DNA associated with apoptosis. The specificity of TdT for protruding, recessed, blunt ended double stranded DNA or for single stranded DNA is cation dependent.

Source: Purified from *E. coli* containing a recombinant plasmid harboring the bovine TdT gene.

Unit Activity: 15 units/µl

Unit Definition: One Unit of enzyme catalyzes the incorporation of 1 nmole of dATP into acid-precipitable material in one hour at 37 °C under standard assay conditions.

Substrate Specificity: Protruding, recessed or blunt-ended double stranded DNA, or single stranded DNA with free 3'-hydroxyl terminus.

Assay Conditions: 20 mM potassium cacodylate, 25 mM Tris-HCl (pH 7.2), 8 mM $MgCl_2$, 0.33 mM $ZnSO_4$, 0.2 mM dATP, 42 pmol oligo $d(A)_{18}$ and 0.5 µCi ^3H dATP (1 - 0.4 µM) in a 50 µl total reaction volume.

Storage Buffer: 60 mM KPO_4, 150 mM KCl, 1 mM β-mercaptoethanol, 1% Triton X-100, 50% (v/v) glycerol at pH 7.2 (20 °C).

Storage Conditions: Store at -20 °C in a manual defrost freezer. Avoid repeated freeze-thawing.

 E2/25/09v1

TREVIGEN®
8405 Helgerman Court, Gaithersburg, MD 20877 USA
Voice: 1-800-TREVIGEN (1-800-873-8443) • 301-216-2800
Fax: 301-560-4973 • e-mail: info@trevigen.com • www.trevigen.com

Terminal Deoxynucleotidyl Transferase (TdT) Enzyme
Catalog #: 9510-01K-EB
Storage: -20 °C

TREVIGEN®
1-800-873-8443