Creative Enzymes®

Native Calf Terminal Transferase

Cat. No. NATE-0692

Lot. No. (See product label)

Introduction

Description	Bovine terminal transferase (TdT) is a primer-dependent polymerase that catalyzes the addition of deoxynucleotides to the 3'-OH terminus of DNA molecules with the release of inorganic phosphate. TdT reacts preferentially with either single-stranded DNA molecules or double-stranded-DNA with 3' overhangs, but procedures have been developed to label blunt ends or 3'-recessive ends. In a reaction mixture, the divalent ion (Co2+, Mn2+, Mg2+) will influence purine and pyrimidine polymerization rate. Activities of TdT are also affected by the bases (dATP, dCTP, dGTP and dTTP) present.
Applications	Suitable for: • Addition of homopolymers to vectors, inserts and cDNA for cloning • Labeling the 3′-end of double-and single-stranded DNA with non-radioactive or radioactive labels • Carrying out in vitro mutagenesis by adding single nucleotides to DNA • Use in TUNEL assays
Synonyms	DNA nucleotidylexotransferase; terminal deoxyribonucleotidyltransferase; terminal addition enzyme; addase; deoxynucleotidyl terminal transferase; deoxyribonucleic acid nucleotidyltransferase; deoxyribonucleic nucleotidyltransferase; terminal deoxynucleotide transferase; TdT; EC 2.7.7.31; 9027-67-2

Product Information

Species	Calf
Source	Calf thymus
Form	buffered aqueous glycerol solution
EC Number	EC 2.7.7.31
CAS No.	9027-67-2
Molecular Weight	mol wt 60 kDa
Concentration	>5000 U/mL
Function	DNA binding; DNA nucleotidylexotransferase activity; DNA-directed DNA polymerase activity
Unit Definition	One unit will incorporate 1 nanomole of dATP into acid-precipitable material in one hour at 37°C using d (pT)6 as primer.

Storage and Shipping Information

Storage	−20°C