## Reverse Transcriptase from Moloney Murine Leukemia Virus, Recombinant

Cat. No. NATE-0660
Lot. No. (See product label)

## Introduction

Description This Reverse Transcriptase has exceptionally strong strand displacement activity and enables efficient preparation of cDNA up to 12 kb in length. It is robust, versatile and well-suited for applications requiring full-length cDNA such as preparation of cDNA libraries and other techniques involving first strand cDNA synthesis (RT-PCR, preparation of cDNA probes, real-time quantitative RT-PCR). It can be used for performing a reverse transcription reaction with any RNA template including GC-rich templates and RNAs with high levels of secondary structure. This enzyme is a modified, recombinant MMLV (Moloney Murine Leukemia Virus) reverse transcriptase and is verified to be RNase H Minus. Because of the excellent extension capability of PrimeScript Reverse Transcriptase, preparation of cDNA can be performed at a lower temperature $\left(42^{\circ} \mathrm{C}\right)$, decreasing the risk of RNA degradation that can occur during conventional reactions performed at higher temperatures.

Applications RT-PCR; First strand cDNA synthesis; cDNA probe preparation; Synthesis of cDNA libraries with a high proportion of full-length cDNAs.

Synonyms Reverse transcriptase; RT

## Product Information

Species Moloney Murine Leukemia Virus

## Source E. coli

Buffer $\quad 5 \times$ Buffer (for cDNA synthesis) $250 \mathrm{mM} \mathrm{Tris-HCl}, \mathrm{pH} 8.3375 \mathrm{mM} \mathrm{KCl} 15 \mathrm{mM} \mathrm{MgCl} 2$ Reaction mixture for unit definition: 50 mM : Tris- $\mathrm{HCl}, \mathrm{pH} 8.375 \mathrm{mM}$ : KCl 8 mM : MgCl 210 mM : DTT $20 \mathrm{ug} / \mathrm{mL}$ : (ra)n (dT)12-18 0.5 mM : [3H]dTTP 0.1\%: NP-40 Storage Buffer Composition 200 mM Tris-HCl, pH 7.8100 mM NaCl 1 mM EDTA 1 mM DTT 50\% Glycerol (v/v)

## Unit One unit is the amount of the enzyme that incorporates 1 nmol of [3H]dTTP in 10 minutes at $37^{\circ} \mathrm{C}$, with Definition poly (rA), oligo (dT) 12-18 as the primer-template.

## Storage and Shipping Information

Storage Storage at- $20^{\circ} \mathrm{C}$

