

## 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 (42°C), 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

5X Buffer (for cDNA synthesis) 250 mM Tris-HCl, pH 8.3 375 mM KCl 15 mM MgCl<sub>2</sub>  
Reaction mixture for unit definition: 50 mM: Tris-HCl, pH 8.3 75 mM: KCl 8mM: MgCl<sub>2</sub> 10 mM: DTT 20 ug/mL: (ra)n (dT)12-18 0.5 mM: [3H]dTTP 0.1%: NP-40  
Storage Buffer Composition 200 mM Tris-HCl, pH 7.8 100 mM NaCl 1 mM EDTA 1 mM DTT 50% Glycerol (v/v)

#### Unit Definition

One unit is the amount of the enzyme that incorporates 1 nmol of [3H]dTTP in 10 minutes at 37°C, with poly (rA), oligo (dT) 12-18 as the primer-template.

### Storage and Shipping Information

#### Storage

Storage at -20°C