ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

□ Cat # RP-396 Recombinant Molony Murine Leukemia Virus Reverse Trancscriptase **Size**: □ 2500 U

Source: *Recombinant E. coli strain.* MMLV (Molony Murine Leukemia Virus) Reverse Transcriptase is a DNA polymerase that synthesizes a complementary DNA strands from single-stranded RNA, DNA, or an RNA-DNA hybrid as a template. This recombinant enzyme was purified from E.coli, which carried a modified MMLV-RT gene. Compared to AMV Reverse Transcriptase, this enzyme has a much weaker 5' - 3' ribonuclease H activity, which allows the syntesis of longer cDNAs (>7kb). 50mM Tris-HCl, 0.1M NaCl, 0.1% Triton X-100, 2mM DTT, 0.1mM EDTA and 50% glycerol.

Applications and Suggested Dilutions: 200 units/ml. 1. 1st strand cDNA synthesis. 2. Primer extension. 3. RT-PCR. 5X Reaction Buffer: 250mM Tris-HCl (pH8.3), 375mM KCl, 15mM MgCl2, and 50mM DTT. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Stable for 5 days at 10°C, for longer period of time store at -20°C. **Please prevent freeze-thaw cycles. Standard cDNA** Synthesis Conditions: 50mM Tris-HCl (pH8.3), 75mM KCl, 3mM MgCl2, 10mM DTT, 1.0mM each dATP, dGTP, dCTP, and dTTP, 0.2 mg radom hexamer,1-5mg RNA, 200units M-MLV RT. The reaction volume was 20ml and the incubation was 45 min at 42oC. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Unit Definition: One unit is defined as the amount of enzyme required to catalyze the incorporation of 1nmol of deoxyribonucleotide into acid-insoluble forms in 10 minutes at 37^{o}C, using poly(A)-oligo(dT)12-18 as the template-primer.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

RP-396 110208V

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