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Recombinant Moloney Mouse Leukemia Virus Reverse Transcriptase

Catalog No.	CRM204A	Quantity:	2500 U
	CRM204B		1 X 10E4 U
	CRM204C		5 X 10E4 U

Alternate Names: MMLV-RT

Description: MMLV (Moloney Mouse Leukemia Virus) Reverse Transcriptase is a DNA polymerase that synthesizes a complementary DNA strand from single-stranded RNA, DNA, or an RNA-DNA hybrid as a template. The Recombinant Moloney Mouse Leukemia Virus Reverse Transcriptase was produced using a modified MMLV Reverse Transcriptase gene. Compared to Avian Myeloblastosis Virus (AMV) Reverse Transcriptase, this enzyme has much weaker 5' - 3' ribonuclease H activity, which allows the synthesis of longer cDNAs (>7kb).

Physical Appearance: Sterile Filtered clear solution (200 U/μl).

Gene ID: 1491871

Concentration: 200 units/ml.

Source: *E. coli*

Formulation: 50 mM Tris-HCl + 0.1 M NaCl + 0.1% Triton X-100 + 2 mM DTT + 0.1 mM EDTA + 50% glycerol.

5X Reaction Buffer: 250 mM Tris-HCl, pH 8.3, + 375 mM KCl + 15 mM MgCl₂ + 50 mM DTT.

Unit Definition: One unit is defined as the amount of enzyme required to catalyze the incorporation of 1 nmol of deoxyribonucleotide into acid-insoluble forms in 10 minutes at 37°C, using poly (A)-oligo(dT)12-18 as the template-primer. Standard cDNA Synthesis Conditions: 50 mM Tris-HCl, pH 8.3, + 75 mM KCl + 3 mM MgCl₂ + 10 mM DTT + 1.0 mM dATP + 1.0 mM dGTP + 1.0 mM dCTP + 1.0 mM dTTP + 0.2 mg random hexamer + 1-5 mg RNA + 200 units M-MLV RT. The reaction volume was 20 ml and the incubation was 45 min at 42°C.

Applications:

1. 1st strand cDNA synthesis.
2. Primer extension.
3. RT-PCR.

Storage & Stability: Store at -20°C. **Avoid repeated freeze-thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

