

M-MLV H- Reverse Transcriptase

Cat. No. CMC03 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The M-MLV H- Reverse Transcriptase is a genetically modified M-MLV RT which exhibits RNA or DNA dependent DNA polymerase, but lacks ribonuclease H activity. This enzyme can synthesize a complementary DNA strand initiating from a primer using RNA or DNA templates. Removal of the RNase H activity results in an increase of full-length cDNA products.
Concentration	200 U/μl
Unit definition	One unit is defined as the amount of enzyme required to catalyze the incorporation of 1 nmol of dTTP into an acid-insoluble form in 10 minutes at 37 °C.
Storage& Dilution buffer	50% glycerol (v/v), 50 mM Tris-HCl pH 8.0 at 25 °C, 100 mM NaCl, 5 mM DTT, 1mM EDTA, 0.1% NP-40.
Activities	The enzyme has RNA polymerisation-dependent and DNA polymerisation-dependent activity but lacks a ribonuclease H activity.
Application&Quality control	RNA analysis by primer extension. DNA labeling, cDNA synthesis. Purified free of endo-and exodeoxyribonucleases, phosphatases and ribonuclease. Activity and stability tested in first strand cDNA synthesis.
Reaction Buffers and additional components	• 5 x RT1 Reaction buffer 1 (with MgCl₂ and DTT): 250 mM Tris-HCl pH 8.3 at 25 °C, 500 mM KCl, 30 mM MgCl₂, 25 mM DTT • 5 x RT2 Reaction buffer 2 (Mg²⁺ and DTT free): 250 mM Tris-HCl pH 8.3 at 25 °C, 500 mM KCl • 25 mM MgCl₂ • 20 mM MnCl₂ • 100 mM DTT

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Shipping & Storage conditions

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of this reagent. However, routine storage at -20 °C is strongly recommended.

Safety warnings and precautions

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes wash immediately with water.

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