enzynomics

M- MLV Reverse Transcriptase

Cat.#	Size	Conc.
RT001S	10,000 units	200 units/μl
RT001M	10,000 units	200 units/μl
RT001L	50,000 units	200 units/μl
RT001H	50,000 units	1000 units/μl

Store at -20℃

Supplied with: 10X M-MLV RT Buffer
Sterile water (RNase free)

India Contact:

Life Technologies (India) Pvt. Ltd.
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Product description

Moloney Murine Leukemia Virus Reverse Transcriptase (M-MLV RT) is a RNA-directed DNA polymerase that can synthesize a complementary DNA (cDNA) strand from a primer hybridized to either RNA or single stranded DNA as a template. M-MLV Reverse Transcriptase is capable of synthesizing DNA longer than 5 kb from messenger RNA. RNase H activity of M-MLV reverse transcriptase is weaker than that of Avian Myeloblastosis Virus (AMV) reverse transcriptase.

Characteristics

- Molecular weight: 71 kDa
- Reaction temperature: 37℃ or 42℃
- Heat inactivation: 70℃, 10 min

Applications

- Synthesis of first-strand cDNA
- Primer extension

Quality control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Unit definition

One unit is the amount of enzyme required to incorporate 1nmol of dTTP into acid-insoluble materials using 0.4 mM poly(rA)-oligo(dT) as substrate at 37℃ in 10 min.

Storage buffer

50 mM Tris-HCl (pH 7.6), 150 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 0.1% NP40, 50% glycerol.

10X M-MLV RT Buffer

500 mM Tris-HCl (pH 8.3), 30 mM $MgCl_2$, 100 mM DTT, 750 mM KCl

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Your Molecular & Cell Technology Partner

Standard reaction conditions

10X M-MLV RT Buffer	2 μl
M-MLV Reverse Transcriptase (200 units/μl)	1 μl
dNTP Mixture (2 mM each)	1 μl
[a]Template	X μl
[b]Primer	1 μl
RNase Inhibitor (40 units/μl)	0.5 μl
Distilled water	up to 20 μl

[a]Prepare one of the following RNA template.
- Total RNA: 1 ng~5 μg
- Messenger RNA (mRNA): 1 ng~250 ng
- Specific RNA: 0.01 pg~0.5 μg

[b]Prepare one of the following primers.
- Oligo $(dT)_{18}$: 50~100 μM
- Random hexamer: 50~100 μM
- Specific primer: 15~20 pmol

→ An additional annealing step is recommended:
- if using oligo$(dT)_{18}$, incubate at 42℃ for 5 min.
- if using random hexamer, incubate at 25℃ for 10 min.

→ Incubate at 42℃ for 60 min.
→ Incubate at 95℃ for 5 min to inactivate the reaction.

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