enzynomics

Life Technologies™
Your Molecular & Cell Technology Partner

SuperiorScript II Reverse Transciptase

Cat.#	Size	Conc.
RT005M	10,000 units	200 units/μl
RT005L	50,000 units	200 units/μl

Store at -20℃

Supplied with: SuperiorScript II Reverse Transcriptase
5X First-Strand buffer
dNTP Mixture (10 mM each)
0.1 M DTT
Sterile water (RNase free)

India Contact:

Life Technologies (India) Pvt. Ltd.
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Product description

SuperiorScript II Reverse Transcriptase is genetically engineered version of M-MLV RT which is reduced RNase H activity and increased thermostability, thus this enzyme can synthesize cDNA at high temperatures more than M-MLV RT. SuperiorScript II Reverse Transcriptase shows improved cDNA yields and RNA detection sensitivity. This enzyme is capable of synthesizing cDNA longer than 12.3 kb from messenger RNA.

Applications

- Synthesis of first-strand cDNA,
- Array labeling
- cDNA library construction
- 3' and 5' RACE, RT-PCR
- Primer extension

Quality control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Inhibitor-free
- Satisfactory yield and length of cDNA products

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 1 nmol of dTTP into acid-insoluble materials using 0.4 mM poly(rA)-oligo(dT) as substrate at 37℃ in 10 min.

Storage buffer

20 mM Tris-Cl (pH7.5), 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 0.01% NP40, 50% glycerol

5X First-Strand buffer

250mM Tris-HCl (pH 8.3), 375 mM KCl, 15mM $MgCl_2$

Standard reaction conditions

5X First-Strand buffer	4 μl
SuperiorScript II Reverse Transcriptase (200 units/μl)	1 μl
dNTP mixture (10 mM each)	2 μl
0.1 M DTT	2 μl
[a]Template RNA	X μl
[b]Primer	1 μl
RNase Inhibitor (40 units/μl)	0.5 μl
Sterile water (RNase free)	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 μM~100 μM
- Random hexamer: 50 μM~100 μM
- Specific primer: 15 pmol~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 70℃ for 15 min to inactivate the reaction.

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