## Super RTase III

| Cat No | Pack size | conc |
|---|---|---|
| RT0100 | 10000 U | 200U/ul |
| RT0500 | 50000 U | 200U/ul |

**Description**:
Super RTase III, is an RNA-dependent DNA polymerase and with reduced RNase H activity and increase thermal stability. The Super RTase III can synthesize 9.5kb products and provide high specificity ,high yields and more fulllength cDNA.

**Reaction temperture:** 50-55ºC

**Storage conditions:** -20˚C

**Unit definition:**
One unit of activity is the amount of enzyme required to incorporate 1 nmole of dTTP into an acid-insoluble form in 10 minutes at 37˚C using polyA-oligo (dT) as template and primer.

**Supplied 5xRT buffer :**
250 mM TrisHCl, pH 8.3
375 mM KCl
15 mM MgCl 2
50 mM DTT

**Protocol**

1. Mix in the tube: 0.1-5 μg of the total RNA (or 50-500 ng of mRNA) 5 pmole of strand-specific primer (or 250 to 500 ng of oligo -dT or 50-250 ng random primer for each μg of RNA) add water up to 13 or to 14 μl
2. Incubate the mixture 10 min at 70˚C, stand on ice for 1 minute and spin down
3. Add into the mixture:
   4 μl of 5xRT buffer
   1 μl of dNTP mix 10mM
   RNAsin – 20-40 units (optional)
   1ul Super RTase III– 200 units
   $H_2O$ – up to 20 μl
4. Mix well and spin down the mixture, if using random primers incubation at 25ºC for 5minutes.
5. Incubate the mixture at 50˚C during 30-60 minutes. If necessary, can increase to 55 ˚C for difficult templates or specific gene primer.
5. Heat the mixture 15 min at 70˚C to inactivate the RTase.
6. Use the mixture for PCR or for other application.

For your PCR-Reaction you need 1-10 μl of your RT-PCR product.

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