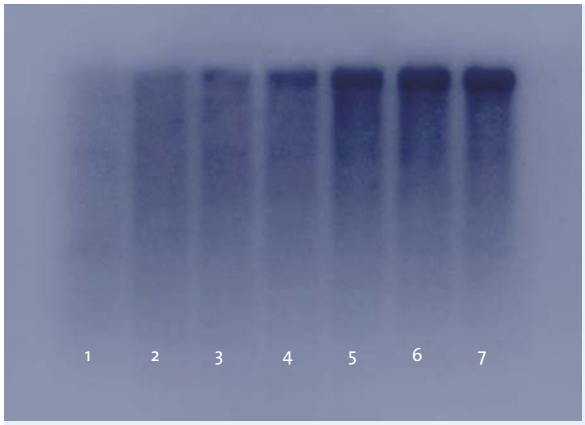
# Super RT

Super RT is highly purified from Avian Myeloblastosis Virus (AMV) as αß holoenzyme. HT Biotechnology Super RT is essentially nuclease-free. It is qualified for dideoxy sequencing of DNA and RNA as well as for cDNA synthesis. The optimal temperature for activity is 41-45°C.




**Legand (left to right)** Lane 1: $^{32}$P-labelled cDNA to polyA-tailed RNA Ladder. Lane 2-7: SUPER RT concentrations of 50, 100, 200, 300, 400 and 600 units/ml, were used to synthesize cDNA to 0.5 µg of 7.5 kb RNA.

This enzyme offers the best quality on the market in its class. Using a 7.5 kb 'difficult to transcribe' RNA substrate, close to 40% of the cDNA synthesized is full length.

### RNase Assay
No detectable RNase activity was observed when 50 units of enzyme was incubated for 24 hours at 37°C with 8 ng mRNA in a 20 ul reaction volume.

### Exonuclease Activity
Incubation of 50 units of the enzyme with 1 µg lambda DNA for 16 hours at 37°C in the stated reaction buffer did not produce any detectable degradation of the DNA.

### Synthetic Activity
Incubating globin mRNA for 5 minutes at 37°C with the enzyme, resulted in a 99% or more yield of full-length cDNA. Using AMV 35S mRNA, 44% of the cDNA was 4.4 kb.

Super RT is supplied with buffer and a protocol for RT-PCR.

### Concentration
21 U/µl

### Unit Definition
One unit is the amount of enzyme that, at 37°C, incorporates 1 nmol of dTTP into acid-insoluble form in 10 minutes, using polyA-oligo $dT_{12\text{-}18}$ as substrate.

### Assay Conditions
50 mM Tris-HCl (pH 8.3); 40 mM KCl, 6 mM $MgCl_2$; 0.5 mM dTTP; 0.4 mM polyA-oligo $dT_{12\text{-}18}$; 2 units Super RT. Incubate at 37°C.

### Storage Buffer
0.2 M Potassium Phosphate (pH 7.2); 2 mM DTT; 0.2% Triton X-100; 50% (v/v) glycerol.

### Storage Temperature
Store at -20°C.

## Ordering information

| Order Nr | Product | Description | Packaging |
|---|---|---|---|
| RT01a | Super RT | AMV Super Reverse Transcriptase | 500 units |
| RT01b | Super RT | AMV Super Reverse Transcriptase | 1.000 units |