



First Strand cDNA Synthesis Kit

- cDNA generated is ideal for real-time PCR, cDNA library construction, and RT-PCR assays
- Ultra-stable reverse transcriptase for full length, high yield cDNA
- Highly suited to low abundance Total RNA

The PHENIX First Strand cDNA Synthesis Kit contains all necessary components to generate cDNA from an RNA template. The generated cDNA is suitable for PCR[®] with gene-specific primers or for other downstream applications. The kit is based on our ultra-stable MMLV reverse transcriptase and is suitable for first strand cDNA synthesis, cDNA library construction, and the production of templates for RT-PCR amplifications. The cDNA Synthesis Kit is optimized for RT reactions using a wide range of total RNA amounts (100pg-2µg), such that long and low abundance cDNAs can be detected by amplification after cDNA synthesis.

The kit contains oligo (dT)18 and random hexamer primers together with control RNA template. The kit components are fully optimized to generate maximum yields of full length cDNA. The dNTPs included in the kit are 99% pure.

The cDNA Synthesis Kit contains enough reagents to perform 30 or 100 single-strand reactions.

Ordering Information

Cat No	Description	Unit	Price
DNP-FS30	First Strand cDNA Kit (For subsequent PCR [®] or qPCR [®])	30 Rxns	\$125.00

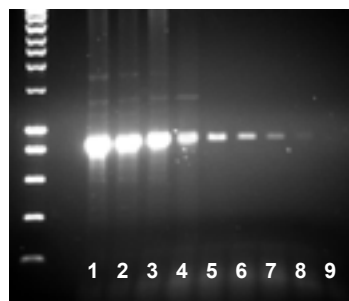
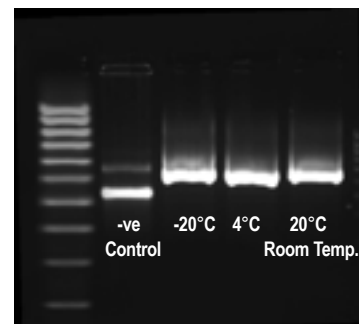


Illustration of High Sensitivity.

High sensitivity was observed with a serial dilution experiment: Various quantities (as indicated) of total HeLa cell RNA were reverse-transcribed using the reverse transcriptase and oligo (dT)18 primer in a 20µl reaction. Lanes: (1) 50ng, (2) 25ng, (3) 10ng, (4) 1ng, (5) 500pg, (6) 250pg, (7) 100pg, (8) 50pg and (9) 0pg.

Subsequently, 5µl of each reaction was used in conjunction with a β-Actin specific primer to amplify an 860bp band from human mRNA. Marker is HyperLadder™ I.



Stability assay performed on the reverse transcriptase in the cDNA Synthesis Kit.

The First Strand cDNA Synthesis Kit is based on our reverse transcriptase which exhibits no loss of activity even after being subjected to one week storage at diverse temperatures. To demonstrate this advantageous property of the cDNA Synthesis Kit, a 500bp fragment was amplified using the reverse transcriptase which had been stored at room-temperature, +4°C and +20°C respectively. Marker is HyperLadder™ IV.

1. Control-no reverse transcriptase
2. -20°C for one week
3. +4°C for one week
4. Room temp for one week

Note: lanes 2,3 and 4 show a band corresponding to the RNA:DNA hybrid, as opposed to lane 1 where only RNA is observed.