Random Primer Mix

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S1330S 005121114111

S1330S

100 µl **Lot: 0051211** **Exp: 11/14**

60 µM **Store at –20°C**

Description: Random priming is widely used in the first strand cDNA synthesis. Random Primer Mix is a ready-to-use optimized mixture of hexamers and anchored-dT primer ($dT_{23}VN$). A mixture of hexamers and anchored-dT primer provides even and consistent coverage of the RNA template population across a wide range of RNA template concentration. In contrast, traditional random priming by hexamer has poor coverage of 3´ end of RNA templates (1,2,3).

We recommend using Random Primer Mix for reverse transcription of the following RNA templates:

1. RNA without poly(A) tail such as ribosomal RNAs.
2. RNA with strong secondary structures.
3. Partially degraded RNA samples.
4. Target regions at 5´ end of a long messenger RNA transcript.

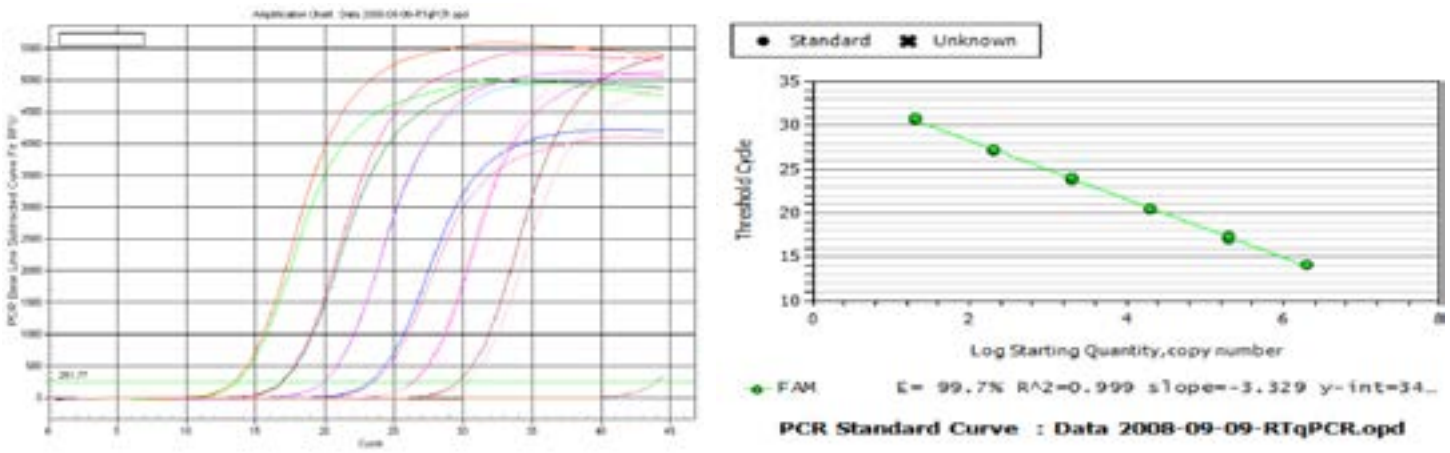
Recommended Usage: Random Primer Mix (60 µM) contains 35 µM hexamers, 25 µM $dT_{23}VN$ and 1 mM dNTPs in 5 mM Tris-HCl (pH 8.0) and 0.5 mM EDTA. We recommend using Random Primer Mix at a final concentration of 6 µM.

References:

1. Goff, L.A. et al. (2004) *BMC Genomics* 5:76.
2. Djikeng, A. et al. (2008) *BMC Genomics* 9:5.
3. Rashtchian, A. (1994) *Genome Research* 4: S83.

Now Supplemented with dNTPs

A.



B.

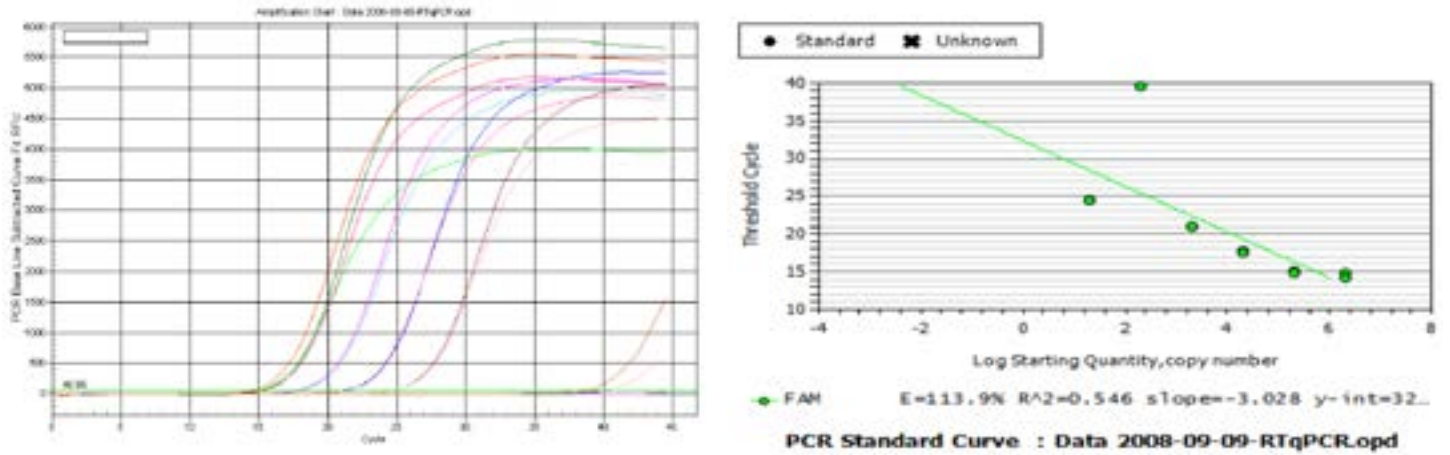


Figure 1. *Various amounts of human spleen total RNA (2 µg to 20 pg) were reverse transcribed using ProtoScript First Strand cDNA Synthesis Master Mix Kit (NEB #E6300) in the presence of 6 µM Random Primer Mix (panel A) or 3.5 µM random hexamers (panel B). About 1/10th of the cDNA products were then analyzed in duplicate qPCR reactions using a pair of primers specific for the beta actin gene with DyNAmo™ Flash SYBR® Green qPCR Master Mix on a Bio-Rad IQ5® system.*