

# Random Primer Mix



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S1330S 007140517051

## S1330S

100  $\mu$ l Lot: 0071405 Exp: 5/17  
60  $\mu$ M Store at  $-20^{\circ}\text{C}$

**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<sub>23</sub>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.

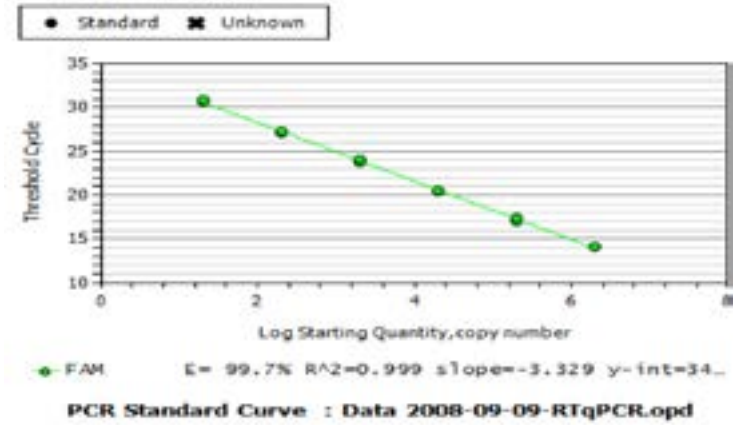
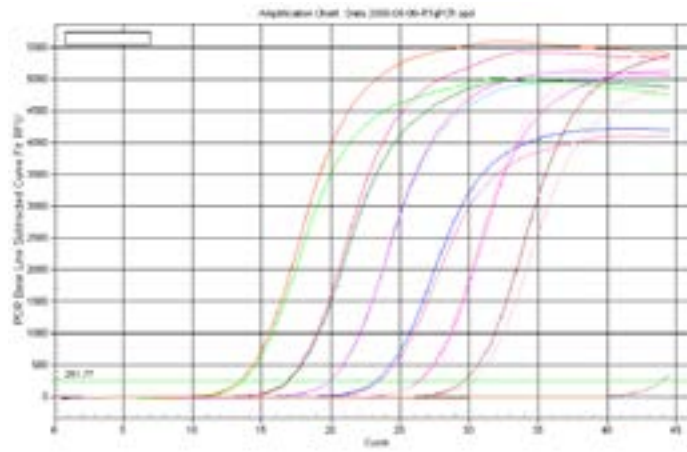
**Recommended Usage:** Random Primer Mix (60  $\mu$ M) contains 35  $\mu$ M hexamers, 25  $\mu$ M dT<sub>23</sub>VN and 1 mM dNTPs in 5 mM Tris-HCl (pH 8.0) and 0.5 mM EDTA. We recommend using Random Primer Mix at a final concentration of 6  $\mu$ M.

### References:

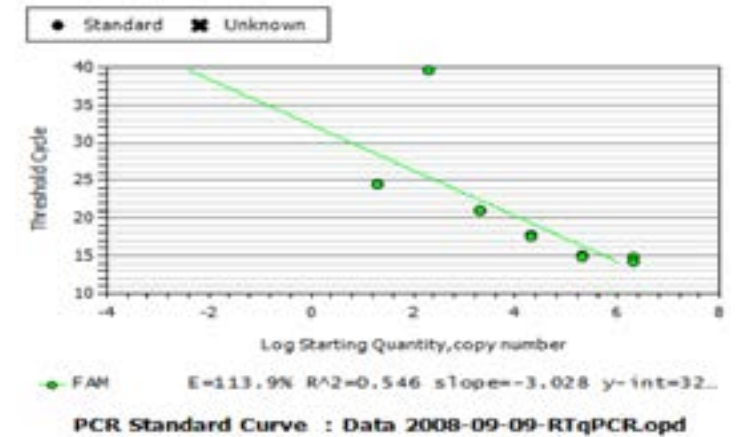
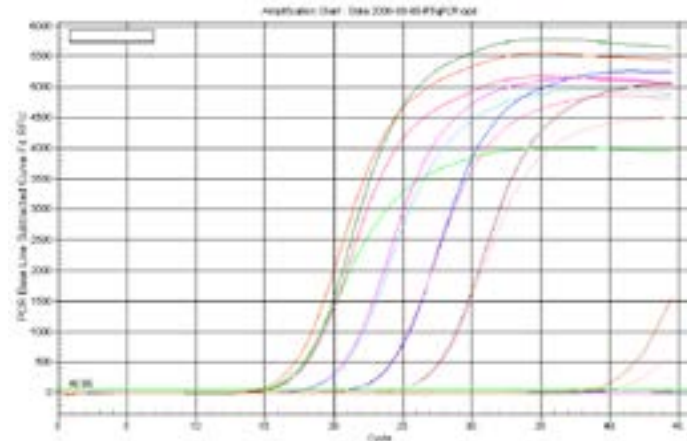
1. Goff, L.A. et al. (2004) *BMC Genomics* 5:76.
2. Djikeng, A. et al. (2008) *BMC Genomics* 9:5.
3. Rashtchian, A. (1994) *Genome Research* 4: S83.

Now Supplemented with dNTPs

A.



B.



**Figure 1.** Various amounts of human spleen total RNA (2  $\mu$ g to 20  $\mu$ g) were reverse transcribed using ProtoScript First Strand cDNA Synthesis Master Mix Kit (NEB #E6300) in the presence of 6  $\mu$ M Random Primer Mix (panel A) or 3.5  $\mu$ M 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.