

**FIG 3. Denaturing agarose gel analysis of *E. coli* total RNA before (-) and after (+) Terminator™ Exonuclease digestion.** The Terminator Exonuclease-treated RNA was concentrated 10-fold.

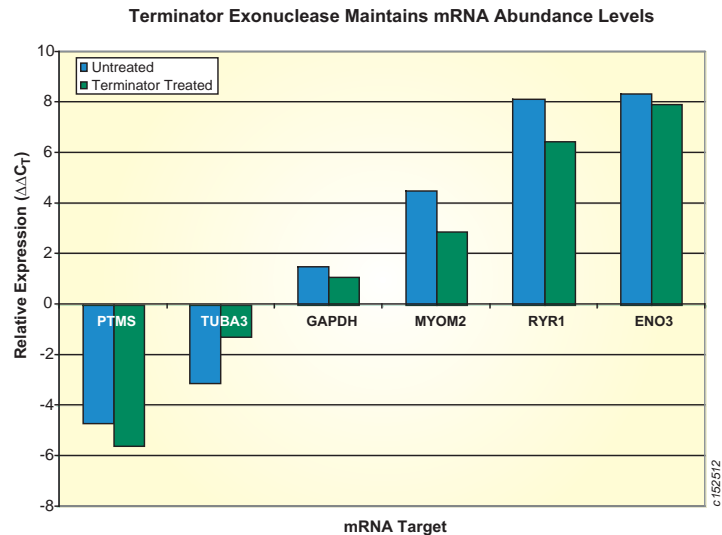
(B2M) in the samples was used for expression level normalization. Duplicate cDNA and qPCR reactions were performed, averaged, and normalized for each comparison. Simultaneous analysis was performed with normalization and test primers, and non-template controls were included. The results shown in FIG 4 are expressed as the difference in threshold cycles ( $C_T$ ) between the target message in one RNA sample (in relation to the normalizer) and that of the other RNA sample (in relation to the normalizer).

**Conclusion**

Terminator™ Exonuclease enables the rapid and simple production of highly-enriched mRNA preparations from total RNA without the use of columns, resins,

beads or immobilized oligo(dT). Terminator Exonuclease acts by selectively digesting the large prokaryotic and eukaryotic rRNAs while conserving the relative abundance of different mRNA species.

\*Patents pending.



**FIG 4. Terminator™ 5'-Phosphate-Dependent Exonuclease treatment of a total RNA sample maintains the relative abundance of the mRNA species in the sample as determined by qPCR (see text for details).**

[www.EpiBio.com/terminator.asp](http://www.EpiBio.com/terminator.asp)

**Terminator™ 5'-Phosphate-Dependent Exonuclease**  
 TER51020 1 U/μl 20 Units  
 Includes Terminator™ Exonuclease 10X Reaction Buffer.

**Make Circular ssDNA without “Bridges” or “Splints”**

EPICENTRE Biotechnologies’ new CircLigase™\* ssDNA Ligase is a thermostable ATP-dependent ligase that catalyzes the circularization of single-stranded DNA (ssDNA) having a 5'-phosphate and a 3'-hydroxyl group. CircLigase efficiently ligates the ends of ssDNA without the need for an oligo “bridge” (also called a “splint”) that is required when circularizing ssDNA using T4 DNA Ligase.

*CircLigase ssDNA Ligase:*

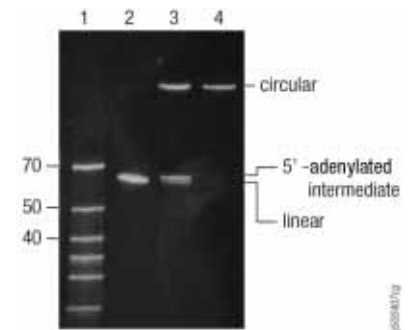
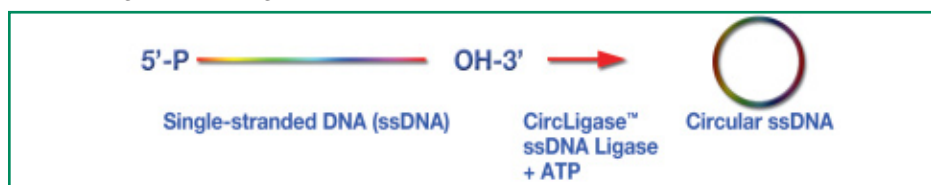
- Circularizes ssDNA of >30 bases.
- Standard reaction conditions produce no detectable ssDNA concatamers or concatameric DNA circles.
- Does not require oligo “bridges” or “splints.”

*Produce circular ssDNA templates for:*

- Rolling circle replication studies.
- Rolling circle transcription studies.
- RNA polymerase activity and inhibitor screening assays.

\*Patents pending.

**FIG 1. CircLigase™ ssDNA Ligase converts linear ssDNA to circular ssDNA.**



**FIG 2. CircLigase™ ssDNA Ligase converts linear ssDNA to circular ssDNA.** A 71-base ssDNA oligo was incubated at 60°C for 1 hour in a reaction containing CircLigase ssDNA Ligase and ATP. **Lane 1**, DNA markers; **Lane 2**, 71-base ssDNA prior to incubation; **Lane 3**, A circular ssDNA and an adenylated intermediate; **Lane 4**, Exonuclease I digested adenylated intermediate and residual starting linear ssDNA oligo, leaving only the circular ssDNA product.

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**CircLigase™ ssDNA Ligase**  
 CL4111K 1,000 Units  
 CL4115K 5,000 Units