



Overcome the Challenges with Degraded RNA

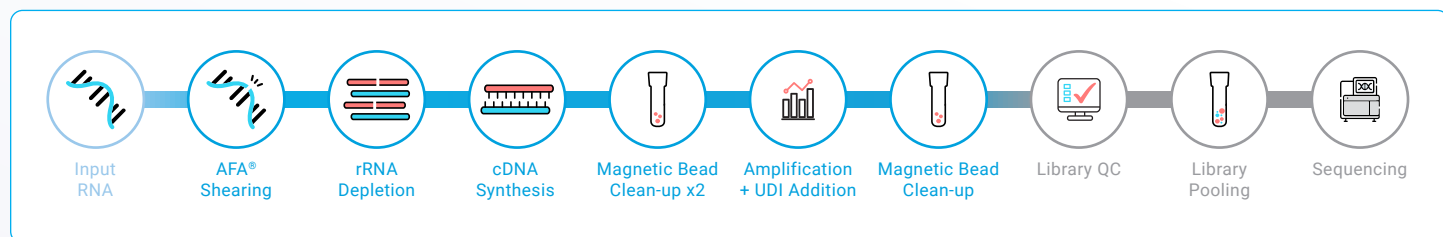
truCOVER[®] Total RNA Library Prep Kit

Covaris truCOVER Total RNA Library Prep integrates the proven accuracy and reliability of our industry-leading Adaptive Focused Acoustics[®] (AFA[®]) nucleic acid shearing with an optimized workflow from sample to sequencing. The result? Higher quality data, faster turnaround, and greater efficiency for your RNA-Seq applications.

Designed specifically for generating strand-specific libraries from Total RNA isolated from a variety of sources, including FFPE.

- ✔ High precision in detection of gene fusions and alternative splicing events at lower sequencing depths
- ✔ Seamlessly integrates with Covaris truXTRAC[®] FFPE SMART Solutions for an end-to-end optimized workflow from sample extraction up to sequencing for FFPE
- ✔ Captures consistently higher proportion of exonic reads (30–40%) across all tested samples, maximizing high data available for differential gene expression (DGE)
- ✔ Optimized RNA library prep workflow leveraging AFA-driven fragmentation to ensure reproducibility & enhanced library diversity
- ✔ Consistent performance with the most challenging samples, using RNA with DV₂₀₀ scores as low as 30%
- ✔ Robust depletion, resulting in >99% elimination of cytoplasmic and mitochondrial rRNA
- ✔ Broad range of input material: 10–500 ng, enabling maximum recovery, zero waste, and wide utilization
- ✔ Unique Covaris Bead Purification Reagent ensures efficient elimination of primer/adaptor dimers
- ✔ Fast, 4 hour workflow with minimal hands-on time making it very automation friendly
- ✔ Supports efficient, high-quality data generation with reduced waste, enabling stronger ROI, and more confident downstream analyses

truCOVER Total RNA Library Prep Kit Workflow



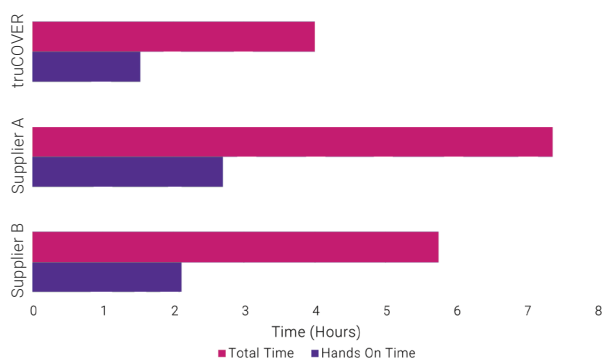


Simplified Workflow Reduces Turnaround Time by up to 40%

truCOVER Total RNA Library Prep integrates fragmentation and strand-specific library construction into a simplified, streamlined workflow with significantly reduced hands-on time.

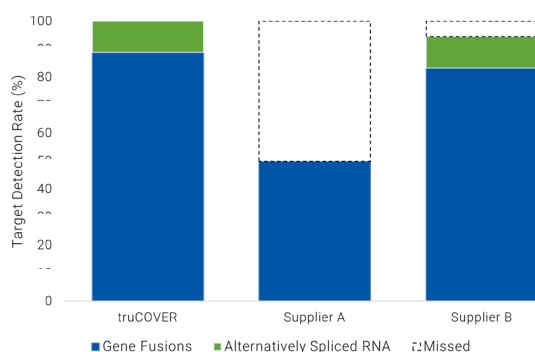
truCOVER Total RNA Library Prep (~4 hrs)	Supplier A (~7 hrs)	Supplier B (~6 hrs)
Input RNA	Input RNA	Input RNA
AFA® Shearing	rRNA Depletion	1 st & 2 nd Strand cDNA Synthesis
rRNA Depletion	Fragmentation	Amplification
1 st & 2 nd Strand cDNA Synthesis	1 st Strand Synthesis	1 st Magnetic Bead Clean-up
1 st Magnetic Bead Clean-up	2 nd Strand Synthesis	2 nd Magnetic Bead Clean-up
2 nd Magnetic Bead Clean-up	A-Tailing	Depletion Preparation
Amplification + UDI Addition	Adapter Ligation	rRNA Depletion
3 rd Magnetic Bead Clean-up	1 st Magnetic Bead Clean-up	Amplification
	Amplification	3 rd Magnetic Bead Clean-up
	2 nd Magnetic Bead Clean-up	4 th Magnetic Bead Clean-up

Workflow Time Requirements



By utilizing a single-enzyme, single-incubation step for cDNA synthesis and optimizing magnetic bead clean-ups, the protocol reduces total workflow time to approximately 4 hours.

Precision of Structural Variants Detection



truCOVER detected all gene fusions and alternatively spliced RNAs in the Seraseq® FFPE Tumor Fusion RNA Reference Material, at a depth of only 25M reads (typical kits require 50M+ reads).

