

A NEW Comprehensive Genomic Profiling Approach to Address Your FFPE Sample Preparation Challenges

Automated deparaffinization workflow for high-quality nucleic acid extraction with Covaris truXTRAC® FFPE SMART Solution and the Hamilton Microlab® STAR™

Enhance Your Workflow Efficiency

From translational to clinical research, high assay and data precision and faster turnaround time make the greatest impact. To meet these demands, your workflow must perform at peak efficiency to consistently deliver reliable data. Covaris, in collaboration with Hamilton, has developed a fully automated solution for extraction, isolation, and purification of nucleic acids from FFPE samples. This unique solution removes the critical, time-consuming bottlenecks of manual processing while introducing a new standard for consistent, scalable, and confident data for genomic profiling pipelines.

A Smarter Way to Extract

The truXTRAC FFPE SMART Solution, powered by the Hamilton Sonication STAR liquid handler, offers exceptional performance. This solution allows any user to process between 8 and 96 samples per day, hands-free, with high-purity and high-yield total nucleic acids for demanding downstream sequencing applications. The fully automated workflow is engineered for exceptional repeatability and reproducibility—batch after batch, regardless of operator expertise and sample complexity.

Why Choose the Covaris truXTRAC FFPE SMART Solution?

For When Every Sample Counts – Proven Purity, Performance, and Precision in FFPE Extraction.

Explore the questions and answers below to learn how this system enhances performance, saves operational costs, and enables faster, more reliable workflows.



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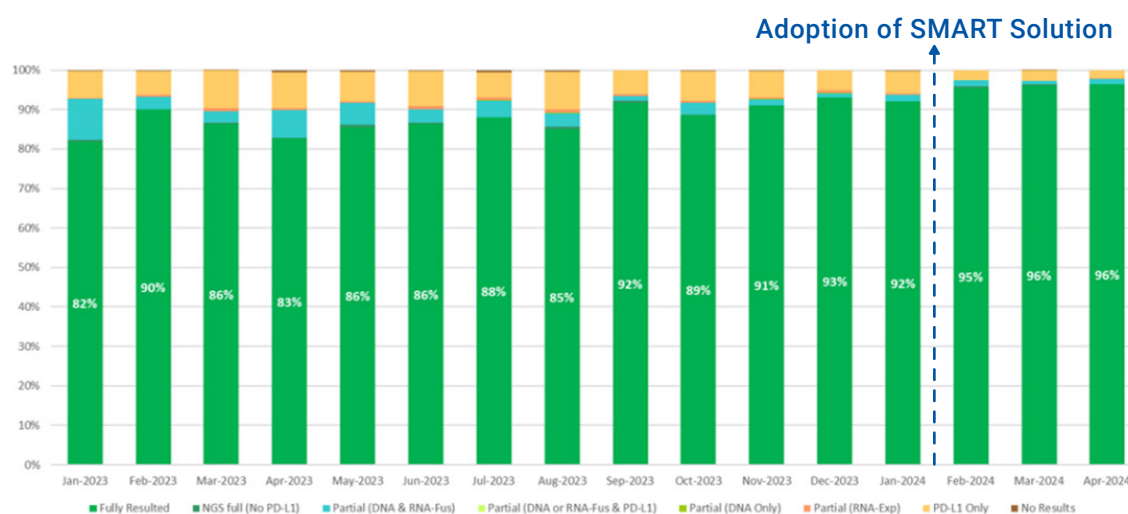
Full Length Article

Fully automated extraction of high-quality total nucleic acids from FFPE specimens for comprehensive genomic profiling of solid tumors

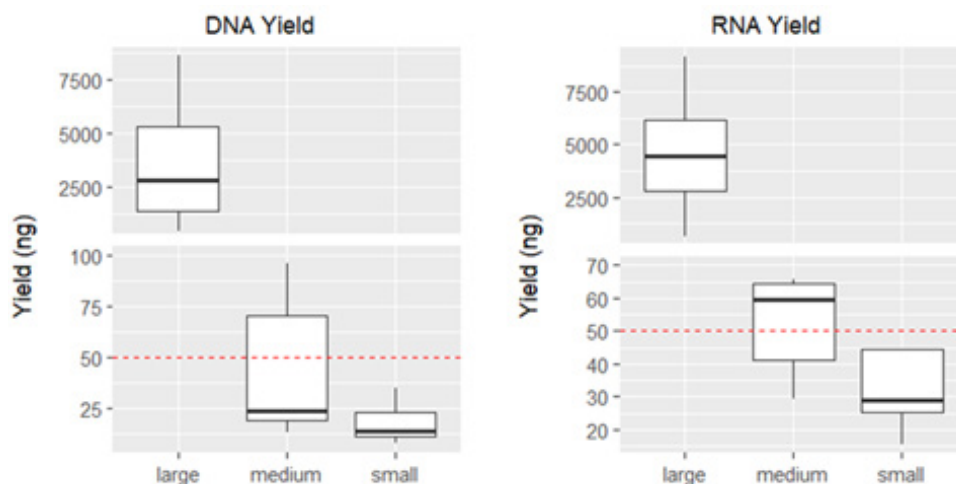
Kristopher Amirault^a, Michael Collins^b, Luca Beker^a, Brandon Mills^b, Martina Werner^a, Jonathan Andreas^b, Daniel Hartman^c, Jordan Dargert^c, Vanessa Process^a, Sean Cederlund^c, Thuy Dao^a, Linnea Menin^a, Molly Ferrara^a, Andrew Briggs^a, Joshua Shreve^a, Daniel Metzger^b, Angela Stout^b, Erin Deblasi^b, Jie An^b, Taylor Jensen^b, Eugenio Daviso^a



- **How many samples can you process?**
 - 8–96 FFPE samples per day in multiples of 8, all within a single shift [1].
- **How easily can this solution be integrated with Hamilton?**
 - Fully automated on the Hamilton STAR for high-precision, reliable, walkaway operation [1].
- **Are the data reliable and reproducible?**
 - Established performance on an automated platform ensures consistent results across batches, operators, and lab settings [1].

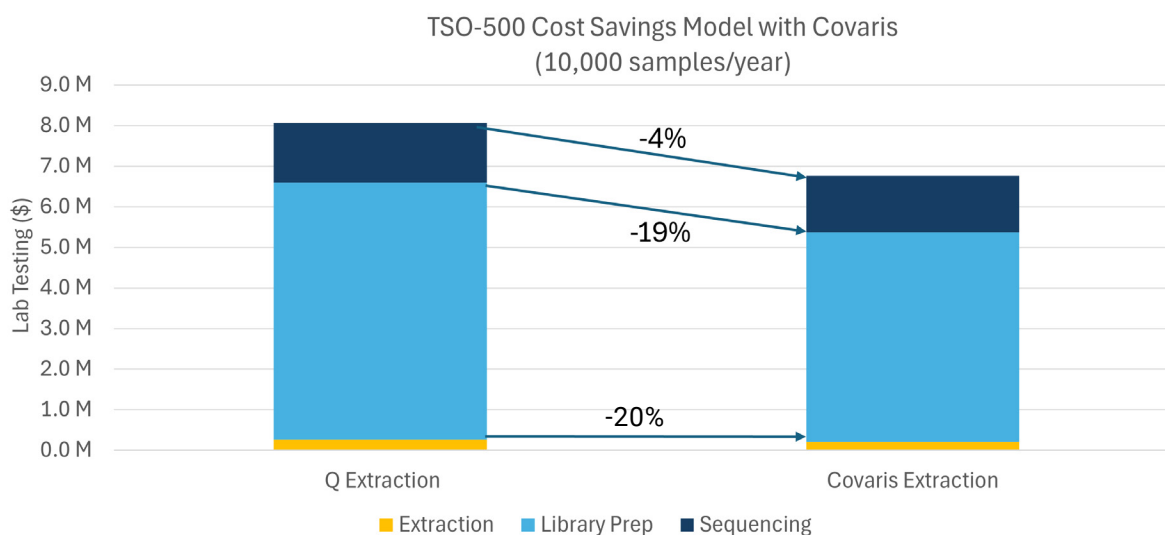


- The bar chart illustrates the improvement in fully resulted sample success rates over time, compared to partial successes, before and after implementing the Covaris truXTRAC FFPE SMART Solution on the Hamilton Assay-Ready Workstation. This integration into LabCorp's OmniSeq® INSIGHT workflow led to a >95% end-to-end success rate for both RNA & DNA—a 7% increase over the previous workflow [2].



• **How would you rate the system performance?**

- The Covaris method provides optimized DNA/RNA yields tailored to neoplastic cell input and delivers high-purity nucleic acids ready for sequencing [1]. Save your precious samples by getting more nucleic acids from less starting material.



• **How does better extraction result in cost savings?**

- The graph demonstrates estimated cost savings using the Covaris FFPE SMART extraction method [2] compared to the Supplier Q-based method, based on data obtained from the Accuracy Study for NTRK1/2/3 fusion detection in the Illumina TruSight™ Oncology Comprehensive (US) Package Insert [1]. The figure shows an annual savings of \$1.3 Million based on a throughput of 10,000 samples using the S2 flow cell on the NovaSeq™ 6000.

Save Operational Expenses

- Reduce QNS and achieve confident results with a robust extraction protocol
- Robust extraction protocol ensures reliable and reproducible data while addressing every throughput requirement

Save Time

- Faster extraction protocol allows you to get to your results, faster than ever before
- Automated protocols enable faster assays without compromising data quality

References

1. Amirault K, et al. [Fully automated extraction of high-quality total nucleic acids from FFPE specimens for comprehensive genomic profiling of solid tumors](#). SLAS Technology 31, 100252. 2025.
2. Daviso E, et al. [High Throughput Genomic Profiling of Solid Tumor FFPE Specimens with Fully Automated Extraction](#). Presentation at the Associate for Molecular Pathology Annual Meeting and Expo (AMP) 2024, Vancouver, British Columbia, Canada.

How can I learn more about your unique solution?

Contact Covaris to automate your FFPE workflow.

- Achieve high quality data, faster than ever before
- Reduce variability
- Improve your operational efficiency



Check out our truCOVER Library Prep Solutions!

- Covaris truCOVER WGS Library Prep portfolio now includes both PCR-Free and amplification workflows, enabling support for a broad-range of DNA input amounts – from 100 pg–0.5 µg – regardless of sample origin.
- Generate consistent and efficient amplification across low input amounts, supporting reliable library construction even from limited or degraded DNA samples.



14 Gill Street
Woburn, Massachusetts
01801-1721 USA



Tel: +1 781-932-3959



info@covaris.com

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US: +1 781.932.3959
customerservice@covaris.com

EU: +44 (0)845 872 0100
emeacustomerservice@covaris.com

APAC: +86 137 6427 6714
APACcustomerservice@covaris.com

Applications
applicationsupport@covaris.com

Service and Support
techsupport@covaris.com

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