

The future of newborn sequencing research.



revvity

Newborn sequencing workflow

Newborn sequencing research, reimagined.

With the latest advancements in next-generation sequencing (NGS), we are experiencing rapid acceleration in genetic disease research. While NGS maintains the power to detect genetic variants responsible for many diseases, these technologies have been inaccessible for many laboratories.

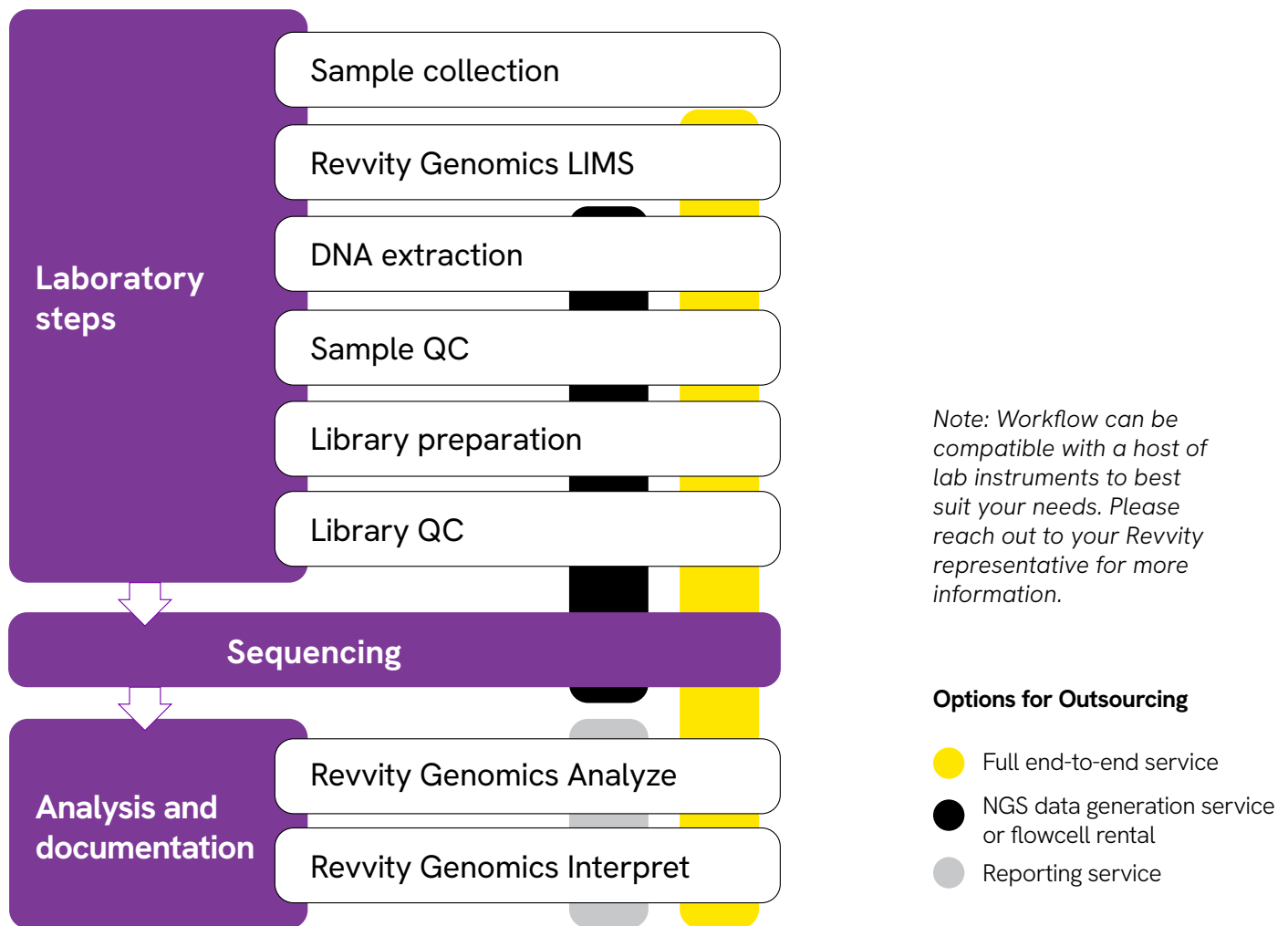
Through our decades of experience in rare disease technologies, Revvity has developed a versatile end-to-end NGS workflow, compatible with both targeted sequencing and WGS methods.

Discover how you can amplify your research with Revvity's newborn sequencing workflow today.



One complete sequencing workflow designed for flexibility

Our configurable, holistic workflow – from the DNA extraction of dried blood spot samples, library preparation, automated liquid handling, sequencing, to final data analysis – is built to bring newborn research into the hands of more laboratories.



Targeted sequencing vs. WGS

While our workflow excels at both WGS and targeted sequencing, we recommend targeted as the optimal starting point. This approach maintains fewer complexities surrounding data storage, security and assessment. Reach out to us to determine which method is best for you.

Multiple starting points, multiple options

As an alternative to adopting our solution, you may choose to consider outsourcing the workflow through Revvity Omics. With many ways to engage, see how you can leverage our genomic technologies and bioinformatic pipelines through Revvity Omics today.

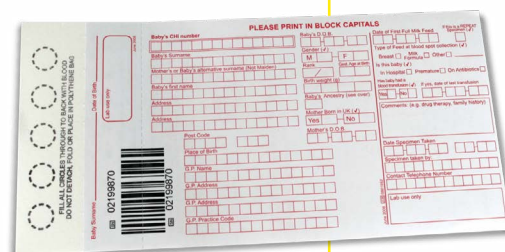
From sample to final assessment, we cover the entire sequencing process.

1

Sample collection

226 Sample Collection Device

A dried blood spot card that delivers reliable and homogenous analytical results from across the dried sample area. Enables simplified sample collection and delivery.

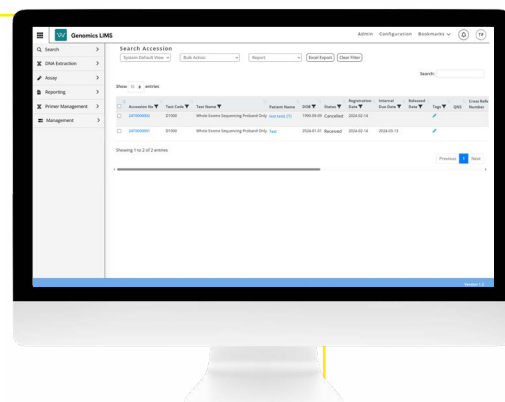


2

Laboratory LIMS

Revvity Genomics LIMS

Our cloud-based, platform solution is primed for secure data management and LIS integration. The solution operates on ISO27001 certified cloud technology while the application is designed to comply with GDPR and HIPAA requirements.



3

Sample extraction

Revvity puncher instruments (multiple options)

Simplified and robust options for your DBS (dried blood spot) punching needs. Equipped with semiautomatic punching capabilities and a changeable head, punch DBS samples into microtitration plates with ease.



chemagic 360 instrument & kits

A well-established magnetic bead-based technology that brings reliability to sample extraction, the chemagic™ 360 is optimized for extracting high-quality and high-yield genomic DNA from dried blood spot samples, making it the perfect choice for newborn sequencing research.



4

Sample QC and quantification

Multiple options

With a host of solutions, we offer several reliable systems that are designed to quantify and assess the quality of your DNA samples. Get fast, high-throughput QC analysis of your samples.



5

Library preparation

NEXTFLEX™ kits

Offers robust genome coverage to identify variants in 390+ genes. Targeted regions are designed for comprehensive research of early onset disorders. Library prep is also Illumina® and Element Biosciences compatible.

Mimix™ gDNA reference standards

Available off-the-shelf, this cell line-derived reference standard maintains genomic complexity to mimic patient samples whilst offering a reliable and renewable source of materials.



6

Library preparation automation

Multiple options

With a portfolio of automated liquid handling solutions, Revvity offers flexibility and throughput to meet your needs. Our instrumentation is designed to minimize cross-contamination and user error.



7

Library QC and quantification

Multiple options

With a host of solutions to serve your unique needs, Revvity delivers fast, high-throughput QC analysis of NGS libraries. Enables a simplified approach to DNA fragment analysis, including NGS library QC.



8

Sequencing

Element Biosciences AVITI™ System and Illumina®

Compatible library with AVITI Systems and Illumina platforms. With unparalleled performance, the cost-effective AVITI System reimagines sequencing with your needs in mind. Built for high accuracy, flexibility, and fast processing time, the AVITI benchtop sequencer can complete two parallel 2x150 runs with indexing, generating up to 600 GB of data and 2 billion reads in 38 hours.

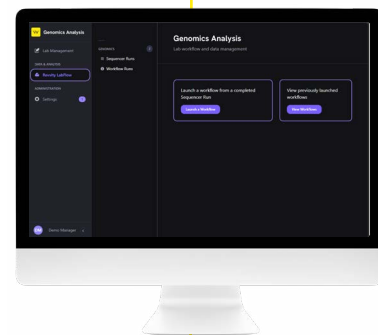


9

Primary and secondary analysis

Revvity Genomics Analyze

Built to offer a seamless fit to your analytical needs for sequencing data, our software offers alignment and variant calling to your laboratory. Software operates on the same closed & secure platform as our LIMS solution and is compatible with both Element Biosciences and Illumina sequencers.

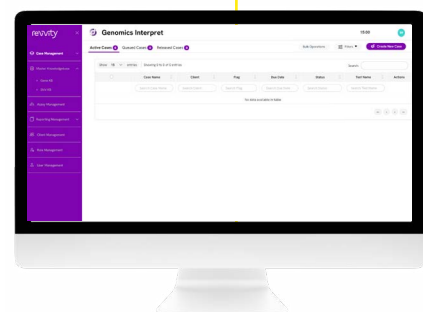


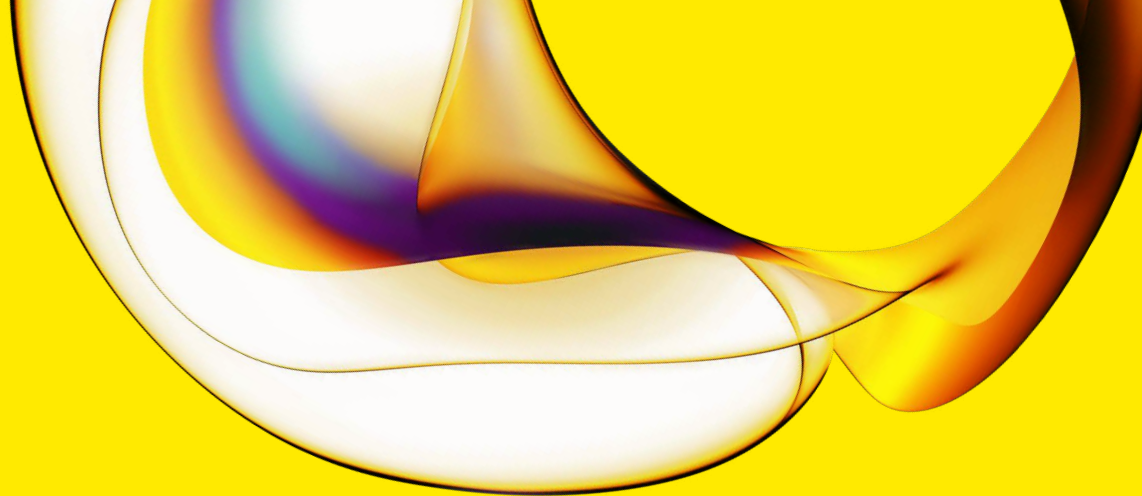
10

Tertiary analysis and reporting

Revvity Genomics Interpret

Our software delivers comprehensive tools for compiling and presenting your research findings. Preview, add comments and select your findings delivery method, all in-app. A cloud-based application, users can login from anywhere for easy-access. Software operates on the same closed and secure platform as our LIMS solution.





[Learn more](#)

Scan or click
to learn more.



[Contact us](#)

Scan or click
to contact us.

www.revvity.com

revvity