

sparQ Lysis Kit

High-quality, high molecular weight gDNA extraction from DBS for high-throughput workflows

FEATURES & BENEFITS:

- **Rapid workflow:** Extracts high-quality, double-stranded gDNA in 50 minutes, saving time and increasing lab efficiency
- **High molecular weight gDNA:** Yields intact genomic DNA (>50 kb) ideal for long-read sequencing
- **Versatile sample compatibility:** One kit supports a broad range of sample types, including DBS, saliva, and cheek swab
- **Broad application use:** Delivers DNA ready for NGS (short and long-read), qPCR, dPCR, and other genomic workflows
- **Automation-ready:** Compatible with high-throughput and automated platforms for effortless scalability

DESCRIPTION:

The sparQ Lysis Kit offers a fast and efficient method for extracting high-molecular-weight genomic DNA (>50 kb) from a variety of sample types, including dried blood spots (DBS), whole blood, saliva, and cheek swab — in just 50 minutes. Designed for both manual and automated platforms, this streamlined workflow consistently delivers high gDNA yield results and is optimized for high-throughput processing.

The sparQ Lysis Kit is a key component of the **sparQ DBS-seq Workflow**, an end-to-end solution for whole genome sequencing (WGS) library preparation from DBS. As the sample preparation module of this Workflow, the sparQ Lysis Kit enables efficient extraction of high-quality genomic DNA for next-generation sequencing, even from limited sample input. The complete Workflow also includes library preparation and library quantification, providing a streamlined and scalable solution.

Streamlined Workflow with Broad Downstream Application Compatibility

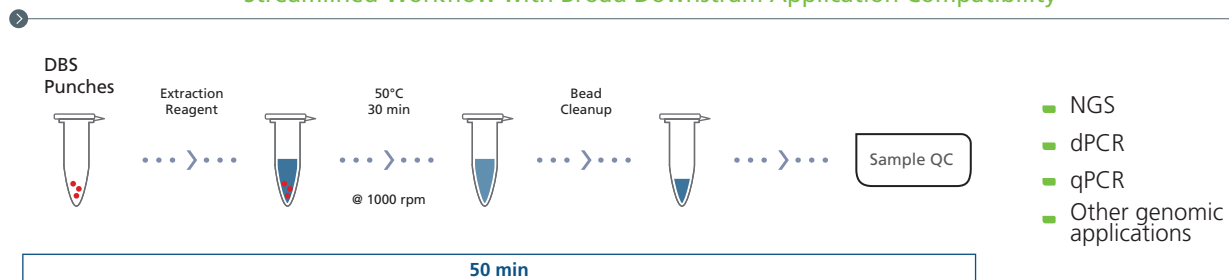
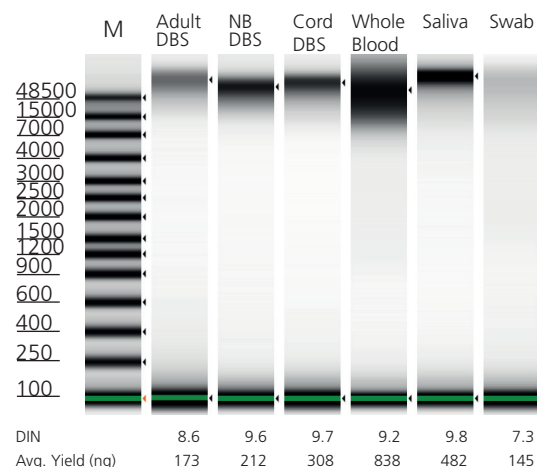


Figure 1 sparQ Lysis Kit workflow. The efficient protocol enables extraction of high-quality, high-molecular-weight gDNA in just 50 minutes from DBS punches. The workflow is simple, automation-friendly, and delivers DNA suitable for NGS, qPCR, dPCR and other genomic applications.

gDNA Extraction from Diverse Sample Types

High-quality gDNA is consistently obtained across a range of sample types — including DBS, whole blood, saliva, and cheek swab - supporting broad applicability in molecular workflows.

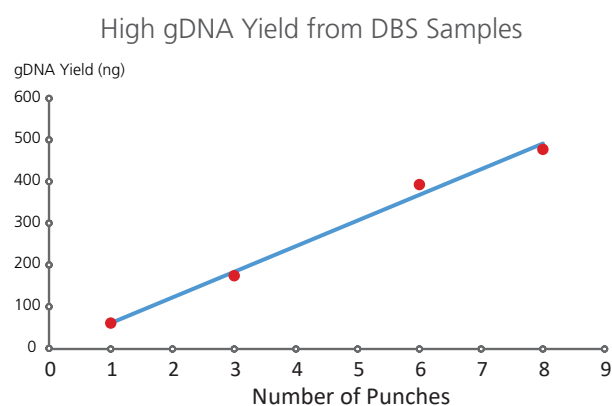
Figure 2 High-quality gDNA extracted from diverse sample types. Samples tested included three 3.2 mm punches of DBS collected from adult, newborn (NB), and cord blood; 200 µl of whole adult blood; 400 µl of stabilized saliva; and 400 µl of stabilized cheek swab. The presence of distinct, high molecular weight bands indicates intact, high-purity DNA suitable for downstream molecular analyses. DIN and sizing were determined using TapeStation Genomic DNA ScreenTape and yield was determined by Qubit dsDNA Broad Range Assay.



Maximized Yield from Minimized Input

Efficient extraction delivers high gDNA yield from limited number of DBS punches. Achieve robust performance with minimal sample input — ideal for sensitive downstream applications.

Figure 3 gDNA yield correlated with the number of DBS punches. Three punches yielded an average of 175 ng of gDNA as measured by Qubit analysis, suitable for PCR-free whole genome library prep. Additional punches can increase yield for applications that require higher input.



ORDER INFO

Product Name	Quantabio Catalog Number	Size
sparQ Lysis Kit, 24R	95220-024	24 rxns
sparQ Lysis Kit, 96R	95220-096	96 rxns
Related Products		
sparQ DNA Frag & Library Prep Kit, 24R	95194-024	24 rxns
sparQ DNA Frag & Library Prep Kit, 96R	95194-096	96 rxns
sparQ PureMag Beads - 5 ml	95196-005	5 ml
sparQ PureMag Beads - 60 ml	95196-060	60 ml
sparQ PureMag Beads - 450 ml	95196-450	450 ml
sparQ UDI Adapters (1-96)	95211-096	96 rxns
sparQ Universal Library Quant Kit - 100 R	95210-100	100 rxns
sparQ Universal Library Quant Kit - 500 R	95210-500	500 rxns