Simple, high-resolution, high-sensitivity capillary gel electrophoresis

QIAxcel® Connect. Have it all.

Sample to Insight

All your gel electrophoresis needs – in *one* instrument

Simple run setup and full automation

Say goodbye to tedious gel preparation, with QIAxcel's ready-to-use gel cartridge system that lets you analyze up to 96 samples in one go.

From high-sensitivity to high-resolution analyses, a range of QIAxcel cartridge kits give you the versatility and flexibility to address your analytical needs.

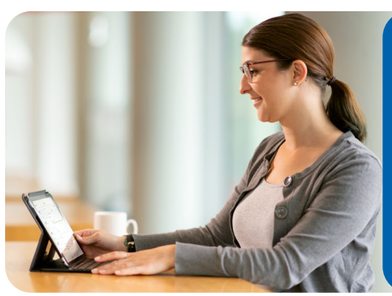
Conserve your lab's time and finances by analyzing over a thousand samples with one cartridge, at a low cost per analysis.

See how it works. View the virtual demo at **www.qiagen.com/QIAxcel-Connect-tutorial-videos**

Get lab work done from outside the lab

... By monitoring your sample run through the QIAsphere® system

What is QIAsphere?
Scan the QR code to find out.



QIAsphere ready

Fast and comprehensive RNA quality control

- Objective assessment of samples with the QIAxcel RNA integrity score (RIS) or DV_{200}
- High-sensitivity and high-resolution analysis; resolves small RNAs
- Fast time to results – around 12 minutes in total for 12 samples

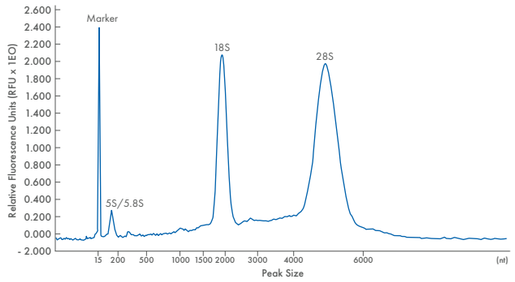


Figure 1. RNA integrity analysis.
RNA (5 ng/µL) was extracted from Jurkat cells using the RNeasy® Mini Kit and then analyzed on the QIAxcel Connect. The electropherogram result shows 18S and 28S ribosomal peaks. RNAs of small length such as 5S/5.8S rRNA and tRNAs are also clearly visible.

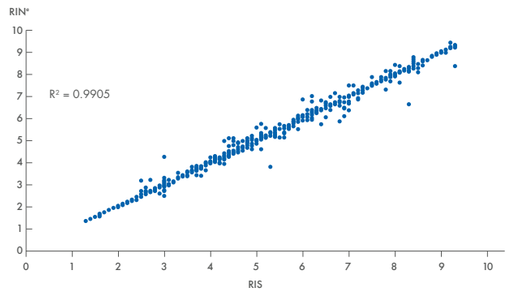


Figure 2. Correlation of RIS and RIN^e.
RNA samples were purified from rat lung, rat liver and Jurkat cells, and then analyzed in replicates (n=689) on the TapeStation® 2100 and the QIAxcel system. The RIN^e and RIS values of the RNA samples were plotted to establish correlation.

All-in-one tool for NGS workflows

- Flexible kit portfolio, to address the quality control of various starting material
- Comprehensive in-process control and assessment of final libraries
- Automatic analysis and reporting based on respective library-acceptance criteria

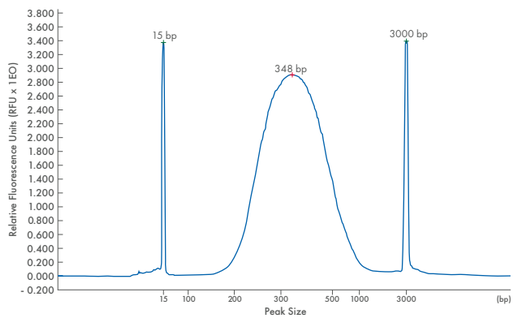


Figure 3. Genomic DNA library QC results.
NGS library was prepared from genomic DNA *(Escherichia coli)* using a QIAseq® FX DNA Library Kit and analyzed with a QIAxcel instrument and DNA High Sensitivity Kit (1:10 predilution, library enrichment performed). Expected library size was 200–600 bp.

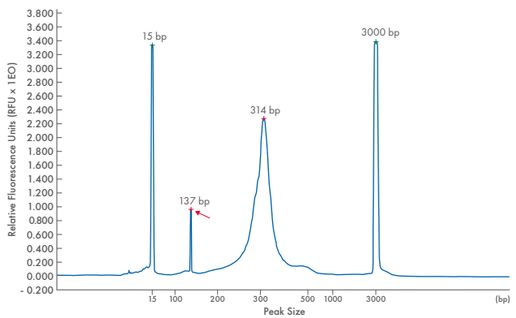


Figure 4. Cell-free DNA library with adapter–dimers present.
NGS library was prepared from cfDNA (human blood) using the QIAamp® Circulating Nucleic Acid Kit and analyzed with a QIAxcel instrument and DNA High Sensitivity Kit (1:50 predilution). Expected library size was 200–600 bp. Adapter–dimers are visible [see red arrow].

Versatile analysis, from large fragments to low concentrations

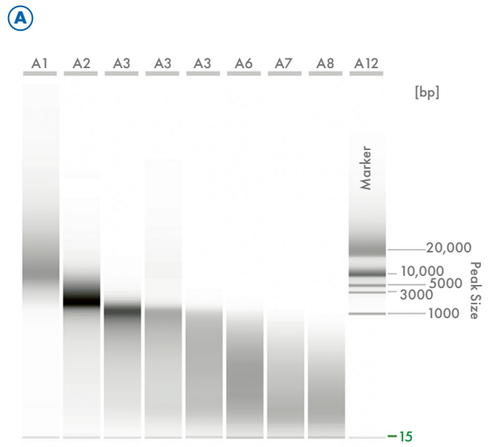


Figure 5. Genomic DNA smear-and-distribution analysis.
A Genomic DNA was extracted from frozen rat kidney tissue using the QIAamp DNA Mini Kit and subjected to degradation via sonication. Setting per round: 20% amplitude, 100% cycle, 5 seconds. Number of rounds: 0, 1, 5, 10, 20, 40, 60 and 80, shown in lanes A1–A8. Samples were then analyzed with a QIAxcel instrument and the QIAxcel DNA High Resolution Kit. **B** The electropherogram overlay shows the visual difference between these degradations: 1 sonication round vs. 10 sonication rounds (top), and without sonication vs. 10 sonication rounds (bottom).

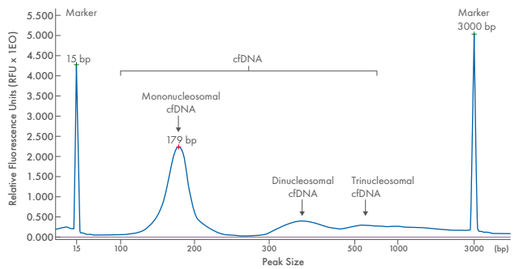


Figure 6. High-sensitivity cfDNA analysis.
Sample was extracted from 8 mL plasma with EZ1&2™ ccfDNA Kit, EDTA blood collection tubes. Concentration is 0.924 ng/µL (Qubit® dsDNA HS Assay Kit). QIAxcel Connect facilitates identifying mono-, di-, and trinucleosome peaks, as well as sizing of peaks. Further analyses (not shown) include sample comparison, distribution analysis (amount of cfDNA compared to total signal), contamination and more.

For more QIAxcel application examples and user guides, visit
www.qiagen.com/qiaxcel-resources

Fully automated, high-resolution PCR analysis

- Single amplicon screening in less than 3 minutes
- High-resolution multiplex analysis in less than 30 minutes
- Resolution of 3–5 bp for fragments smaller than 0.5 kb

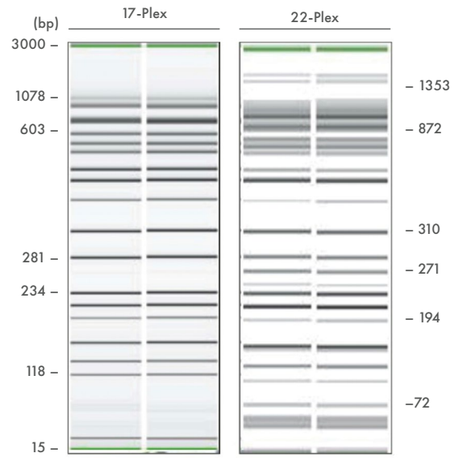


Figure 7. Twenty targets reliably distinguished in multiplex analysis. Multiplex PCR reactions were performed with the UCP Multiplex PCR Kit. More than 20 targets were reliably amplified and distinguished on the QIAxcel electrophoretic system.

Find the kit that fits your need

Kit	Size range	Resolution (bp)*	Limit of detection	Samples per cartridge	Run time (min)†	Application example(s)
QIAxcel DNA High Resolution Kit (cat. no. 929002)	15 bp – 20 kb; long size up to 50 kb	3–5	0.1 ng/µL	1200	7–25	• High-resolution genotyping • VNTRs, STRs, etc. • gDNA integrity check
QIAxcel DNA Screening Kit (cat. no. 929004)	15 bp – 5 kb	20–50	0.1 ng/µL	2400	~7	• Fast PCR screening (single and multiplex) • Restriction digest, plasmid • NGS library check
QIAxcel DNA High Sensitivity Kit (cat. no. 929012)	15 bp – 3 kb	20–50	5 pg/µL	1200	~9	• Quality control of liquid biopsy extracts • NGS library check
QIAxcel DNA Fast Analysis Kit (cat. no. 929008)	15 bp – 3 kb	50	0.1 ng/µL	3000	~3	• HLA typing
QIAxcel RNA QC Kit v2.0 (cat. no. 929104)	Total RNA, resolves small RNAs	N/A	5 ng/µL	1200	~12	• Checking RNA quality
QIAxcel RNA High Sensitivity Kit (cat. no. 929112)	Total RNA, resolves small RNAs	N/A	50 pg/µL	1200	~12	• Checking RNA quality

Abbreviations: gDNA, genomic DNA; HLA, human leukocyte antigen; NGS, next-generation sequencing; STR, short tandem repeat; VNTR, variable number of tandem repeat.
* For 100–500 bp range.
† For 12 samples.

Maximize your QIAxcel Connect uptime

Keep your instrument working as it should with a QIAGEN service agreement. Various subscription levels include options for:

- Free or discounted repair service (labor, travel, shipping)
- Coverage of repair parts
- Response time
- Loaner instrument
- Annual cleaning and maintenance

Find the service agreement level that suits your needs and budget.

Scan or click the QR codes for more info:

For countries in the Asia-Pacific, Europe, Middle East and Africa

For countries in North America and Latin America

The QIAxcel Connect is intended for molecular biology applications. This product is not intended for the diagnosis, prevention or treatment of a disease.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit instructions for use or user operator manual. QIAGEN kit instructions for use and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services (or your local distributor).

To learn more about QIAxcel Connect, visit **www.qiagen.com/qiaxcel-connect-system**

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