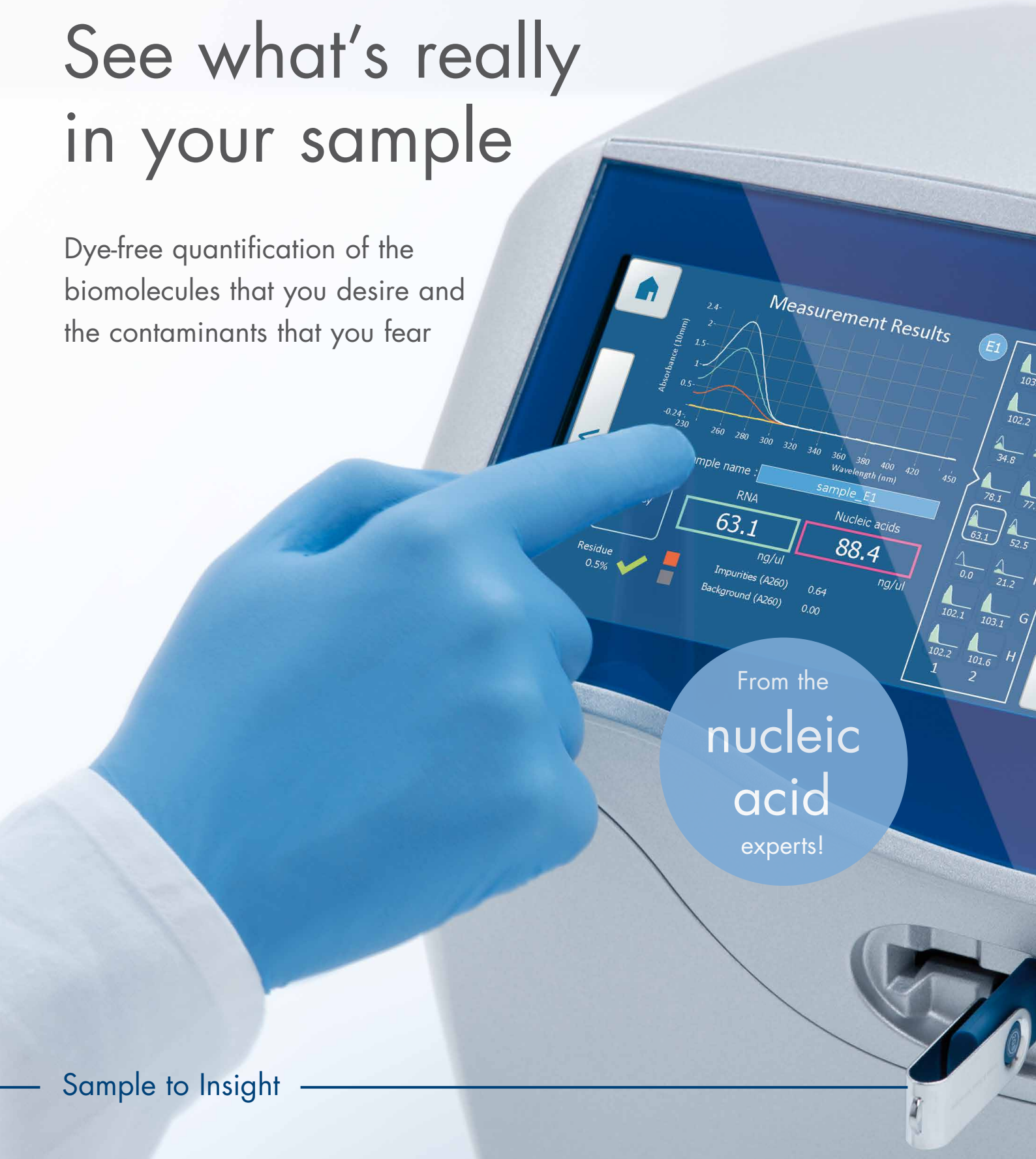
QIAGEN

See what's really in your sample

Dye-free quantification of the biomolecules that you desire and the contaminants that you fear



Sample to Insight

With QIAxpert – Tell DNA from RNA without a dye

Two measurement modes on just 1 instrument

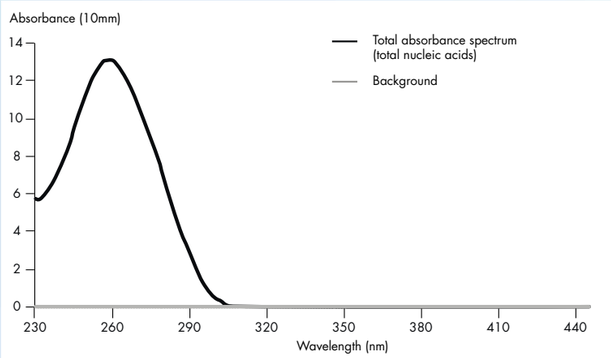
QIAxpert spectrophotometer offers two measurement modes to accommodate all nucleic acid sampe types, whether pure or complex. Unlike other spectrophotometers that simply give an overview of all absorbing components, the revolutionary QIAxpert unmixes the spectra using unique protocols thus discriminating between your molecules of interest.

Classic Spectrophotometry

For pure samples

Measurement of absorbance at defined wavelengths for calculating nucleic acid concentration and providing estimation on contamination level through ratio calculation.

Quantity!

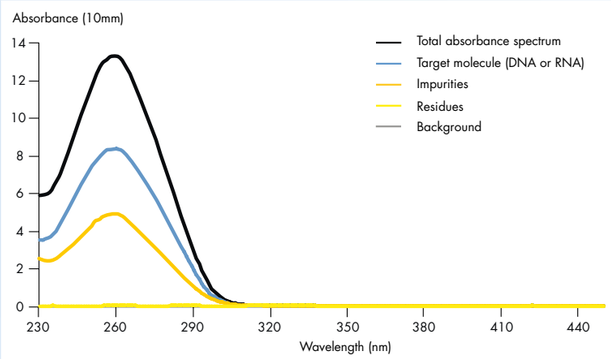


Spectral profiling

For pure & complex samples

Content profiling by unmixing of spectra and fitting of reference sample and buffer components; enabling correct discrimination between DNA, RNA, and impurities.

Quantity & Quality!



Choose the right technology for comprehensive sample characterization

Trust the expert that helps you determine specific amounts of DNA, RNA, and contaminating fractions, when sample QC for downstream applications is critical.

QC Parameter	Classic spectrophotometry	Fluorometry with Dye	QIAxpert	QIAxcel Advanced*
Concentration	●	●	●	●
Protein contamination (A260/280)	●		●	
Salts & other contaminants (A260/230)	●		●	
Differentiation between DNA, RNA, impurities			●	
Size range & Degradation				●

*fully automated gel electrophoresis

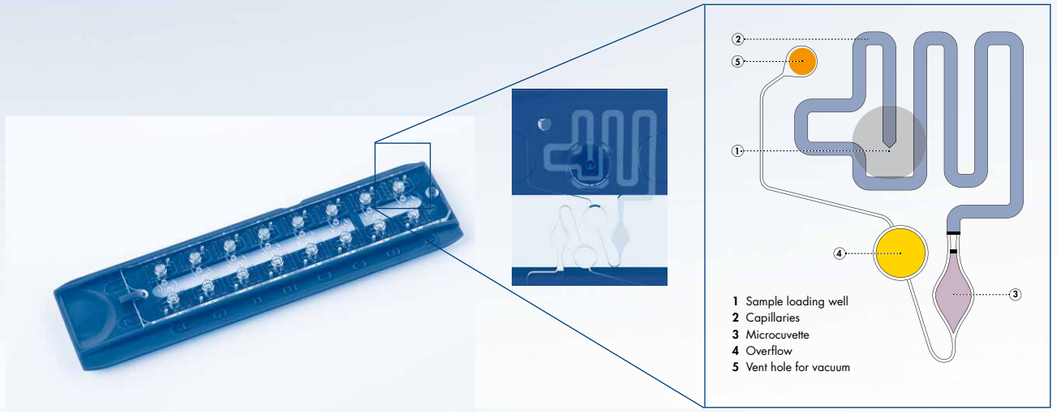
Enjoy well-informed decision making

QIAGEN's quality control systems offer an excellent alternative to conventional methods by enabling a more comprehensive understanding of sample condition, thus supporting better informed decisions on sample use in subsequent downstream processes.

Learn more about quality control here **www.qiagen.com/QCSolutions**

Meet the next generation of nucleic acid and protein quantification

No matter what sample you are investigating, QIAxpert gives you results you can trust. A single, versatile, automated platform that can offer you quantification and quality control of DNA, RNA, and proteins within minutes, is here.



Up to 16 samples in less than 2 minutes

2 µl sample consumption

Rapid analyses via touchscreen

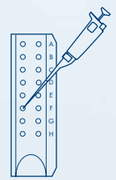
Easily generate reports

USB data output

QIAxpert relies on high-speed microfluidic UV/VIS technology which unlocks several excellent benefits for spectrophotometry measurement.

- No drop & clean action required
- Evaporation-save for 2h
- Flexible input & multisample read

1



Pipette sample into sample carrier and load instrument

2

Simply start measurement using pre-installed protocols

3

Enjoy automatic analysis, comprehensive digital report and its export

Watch our virtual demo at **www.qiagen.com/QIAxpertVirtualDemo**!
Or scan QR code

" We've been working with the QIAxpert spectrophotometer for half a year and are extremely satisfied with the easy-to-use system. It has automatic and very comprehensive data export, and the possibility to measure 16 samples in parallel saves us a lot of time and frustration. We highly recommend the QIAxpert. "

Dr. Sebastian Bartels, University Hospital Freiburg, Germany

Know why QIAxpert is the instrument of choice

A smarter solution with proprietary sample assessment features and benefits

QIAxpert® – a powerful system for nucleic acid quality control

Sascha Fischer[1], Per Hoffmann[1], Stefan Herms[1], Katharina Pfeifer-Sancar[2], Daniel Lehmann[2]

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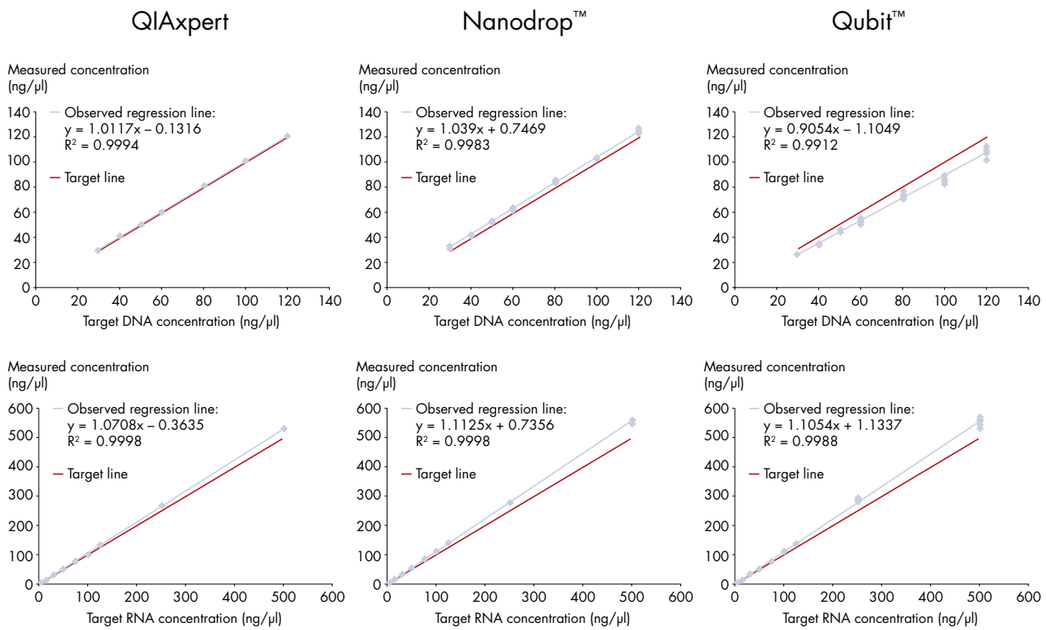
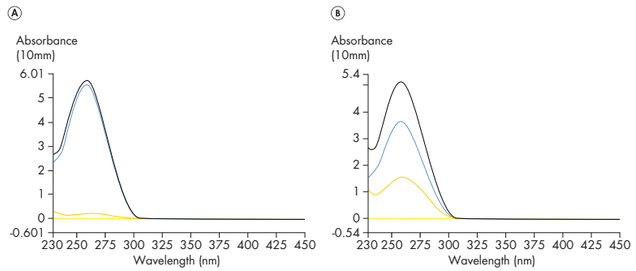


Superior linearity of concentration measurements for commercial DNA and RNA samples using QIAxpert.

Top row: A dilution series of calf thymus DNA measured with the QIAxpert, Nanodrop 8000 and Qubit systems. Data shown for QIAxpert reflect total nucleic acid concentrations measured with the DNA QIAamp app.

Bottom row: A dilution series of human reference RNA measured with the QIAxpert, Nanodrop 8000 and Qubit systems. Data shown for QIAxpert reflect total nucleic acid concentrations measured with the RNA RNeasy® app.



Spectral content profiling discriminates between components in complex samples.

A: A pure sample of calf thymus DNA shows no significant contamination, as evidenced by the simple spectrum.
B: A sample of DNA spiked with RNA was precisely analyzed and quantified. Both samples were measured on the QIAxpert DNA QIAamp application. DNA is indicated by the blue absorbance line while RNA and all detected impurities are depicted by the orange line. A gray line typically appears as a result of the sample background spectrum. Due to low sample background in this case, the gray line is not visible. A yellow line typically depicts the residual spectrum that cannot be attributed to reference profiles used in the algorithm. In this case, the yellow line is flat because no residual components could be detected. The sum of nucleic acid content, impurity and residual spectrum is represented by the black line.

Read the full Application Note at **www.qiagen.com/QIAxpert-QC**.

Overcome the limitations of conventional methods

With classic UV/Vis measurement, the concentration calculation relies only on the absorbance at 260 nm, but both DNA and RNA in the sample can contribute to this result. In reality, the method actually measures all nucleic acids in the sample and can result in overestimation of the RNA or DNA concentration.

Using a fluorescent dye-based method can help quantify only the molecule of interest, but such a method is unable to provide information regarding contaminants and other nucleic acids present.

QIAxpert spectral profiling combines the advantages of both methods. The smart analysis algorithm allows easy differentiation between DNA, RNA, and other contaminants within one, dye-free measurement run. By reporting total nucleic acid and molecule of interest concentration separately and by detection and subtraction of contaminants, QIAxpert gives true insight into your sample composition.

Wide range of pre-installed methods

'Universal Protocols' Non-QIAGEN kits	Dedicated for QIAGEN purification chemistry*
DNA	DNA - Spectral profiling
• A260 dsDNA	• QIAamp
• A260 ssDNA	• QIAsymphony
• Spectral profiling	• QIAquick
RNA	RNA - Spectral profiling
• A260 RNA	• PAXgene
• Spectral profiling	• RNeasy

And there is even more:

- Measure protein via absorbance or colorimetric assay
- Monitor bacterial growth
- Display results on your smart device via QR code
- Calibrate by yourself
- Many report and export formats available

*consult webpage for full list of compatible kits

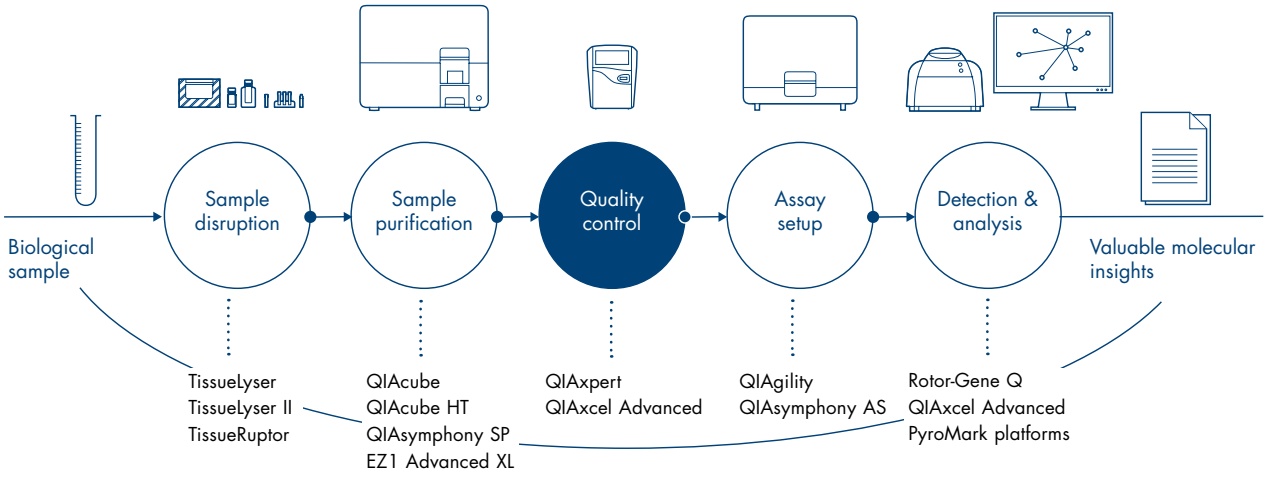
Get yours today!

www.qiagen.com/QIAxpert

To get rid of dyes and cleaning in between sample measurements - schedule a product demo now!

QIAGEN´s Automated Solutions – your gateway to faster and reliable results

Our automation solutions and optimized chemistries seamlessly integrate into your daily work and help you quickly convert your biological samples into valuable molecular insights. Whether you are a researcher in an academic, clinical, commercial or standardized testing lab, our automated Sample to Insight solutions will standardize every step of your workflow and deliver the reproducible, high-quality data you need to compare your results to those from laboratories around the world.



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