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QIAcuity[®] HEK293 resDNA Sizing Kit Handbook

For quantifying and determining the size of HEK293 or human residual DNA using QIAcuity dPCR System

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Kit Contents

QIAcuity HEK293 resDNA Sizing Kit	
Catalog no.	250333
Number of 40 µL reactions	96
QIAcuity resDNA Quant Master Mix	1 × 1.0 mL
QIAcuity HEK293 resDNA Sizing Assay	1 × 0.2 mL
QN Internal Control DNA dPCR	1 vial
QN IC Probe Assay 10x	1 × 0.2 mL
QIAcuity HEK293 resDNA Sizing Positive Control	1 × 0.05 mL
RNase-free Water	1.9 mL

This kit does not include QIAcuity HEK293 resDNA Standard Kit (cat. no. 250225). QIAcuity HEK293 resDNA Standard Kit is a dPCR-verified absolute quantification standard that can be used in combination with QIAcuity HEK293 resDNA Sizing Kit for validation of quantitation accuracy or bridging studies.

Shipping and Storage

QIAcuity HEK293 resDNA Sizing Kit is shipped on dry ice. The kit box should be stored immediately upon receipt protected from light at -30°C to -15°C in a constant-temperature freezer. Under these conditions, the components are stable until expiry date printed on their labels without showing any reduction in performance and quality, unless otherwise indicated on the labels.

Intended Use

QIAcuity HEK293 resDNA Sizing Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of a disease.

All due care and attention should be exercised in the handling of the products. We recommend all users of QIAGEN® products to adhere to the NIH guidelines that have been developed for recombinant DNA experiments, or to other applicable guidelines.

Safety Information

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). These are available online in convenient and compact PDF format at www.qiagen.com/safety, where you can find, view, and print the SDS for each QIAGEN kit and kit component.

Quality Control

In accordance with QIAGEN's ISO-certified Quality Management System, each lot of QIAcuity HEK293 resDNA Sizing Kit is tested against predetermined specifications to ensure consistent product quality.

Introduction

QIAcuity HEK293 resDNA Sizing Kit enables sensitive and accurate quantification and sizing of residual DNA originating from HEK293 or human cells, addressing critical requirements in biopharmaceutical manufacturing as defined by international guidelines from the FDA, EMA, and WHO. These standards require robust analytical methods for both quantification and size determination of host cell DNA impurities in products such as vaccines, therapeutic proteins, and gene therapy vectors. Traditional methods such as microfluidic chip-based electrophoresis, capillary gel electrophoresis, and quantitative polymerase chain reaction (qPCR) have limitations related to standard curve requirements, matrix effects, and precision. Leveraging digital PCR (dPCR) technology, QIAcuity HEK293 resDNA Sizing Kit provides absolute quantification without standard curves, high sensitivity, and specificity for low-level DNA detection. It enables simultaneous quantification and sizing of DNA fragments. The kit has multiplexing capability and robust performance even in complex sample matrices. QIAcuity HEK293 resDNA Sizing Kit includes ready-to-use reagents, internal and positive controls, and is optimized for QIAcuity dPCR platform, supporting streamlined workflows and reliable compliance with global quality standards for biopharmaceutical production.

Principle and procedure

QIAcuity HEK293 resDNA Sizing Kit is a ready-to-use system for the detection, quantification, and sizing of HEK293 or human residual DNA using dPCR. The kit enables precise measurement of both the amount and fragment size distribution of host cell DNA in biopharmaceutical samples. The procedure is based on partitioning the PCR mix into thousands of nanoliter-scale reactions on a dPCR nanoplate, each containing target-specific assays for HEK293/human DNA. During PCR amplification, fluorescently labeled hydrolysis probes bind to the target DNA sequences. As the DNA polymerase extends the primers, its 5'–3' exonuclease activity cleaves the reporter dye from the quencher, generating a fluorescent signal in positive partitions. After amplification, the QIAcuity system counts the

number of positive and negative partitions, allowing for absolute quantification of DNA copy number and determination of fragment size distribution without the need for standard curves. This approach ensures high sensitivity, specificity, and reproducibility for residual DNA analysis in complex sample matrices.

Target regions

QIAcuity HEK293 resDNA Sizing Kit targets a proprietary multicopy locus distributed across several chromosomes within the human genome, enabling sensitive detection and sizing of HEK293 or human residual DNA. The short amplicon, approximately 83 base pairs (bp) in length, is selected for high sensitivity and is detected using the Green (FAM) channel on the QIAcuity platform. Additionally, the kit amplifies a longer region of approximately 345 bp at the same locus, detected using the Crimson (ATTO647N) channel (Table 1). The use of differently sized amplicons allows for precise assessment of DNA size distribution, as the larger target is more susceptible to DNA fragmentation. This dual-target approach enables accurate quantification and sizing of residual DNA, supporting quality control and regulatory compliance in biopharmaceutical applications.

Internal Control

QIAcuity HEK293 resDNA Sizing Kit includes an internal amplification control (IC) to monitor the amplification process and detect the presence of PCR inhibitors in each reaction. This heterologous control is detected in the Yellow channel on the QIAcuity platform. By comparing the IC results in positive control samples and unknown samples, users can identify potential inhibition that may affect assay performance. In addition, the IC serves as an indicator that the PCR has been set up properly, providing an extra layer of quality control. It is recommended that laboratories test and validate their workflows with relevant inhibitors to establish appropriate criteria for detecting inhibition, especially when extraction-free workflows are used. In general, samples extracted with methods such as QIAamp® DNA Mini Kit are free of inhibitors.

Table 1. Targets, amplicon lengths, and channels for QIAcuity HEK293 resDNA Sizing Kit

Target	Amplicon length (bp)	Channel	Copy number
Short target, autosomal	83	Green	Multi-copy, across several chromosomes
Long target, autosomal	345	Crimson	Multi-copy, across several chromosomes
Internal PCR control	200	Yellow	Synthetic fragment

QIAcuity resDNA Quant Master Mix chemistry

The hot-start QuantiNova® DNA polymerase enzyme, along with other proprietary chemical components, enables optimal residual DNA detection and quantification.

Assays

Assays are supplied as a ready-to-use 20x primer–probe mix, enabling multiplexed detection of the short and long human DNA amplicons as well as the internal control in a single reaction.

Description of protocols

This handbook contains protocols for processing residual DNA samples using QIAcuity dPCR technology.

Reaction setup

Description of the dPCR reaction setup using QIAcuity dPCR technology.

Thermal cycling and imaging conditions

Description of cycling and imaging conditions using QIAcuity dPCR technology.

Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, consult the appropriate safety data sheets (SDSs) available from the product supplier.

- QIAcuity HEK293 resDNA Sizing Kit (96) (cat. no. 250333)
- QIAcuity 26K Nanoplates (cat. no. 250001 or 250031)
- Microcentrifuge tubes or PCR plates or strip tubes with appropriate sealing foil. Compatibility of tubes/plates with heating devices needed.
- Single-channel or multichannel pipettor (manual or automatic) with nuclease-free, aerosol-barrier pipette tips
- Vortexer
- *Xba*I restriction enzyme
- Centrifuge for tubes and plates

Important Notes

Further information

- *QIAcuity User Manual*: www.qiagen.com/HB-2717
- *QIAcuity Application Guide*: www.qiagen.com/HB-2839
- Technical assistance: support.qiagen.com

Starting material

This handbook contains protocols and recommendations for quantifying and determining the size of HEK293 or human residual DNA using QIAcuity dPCR System. Real-time cyclers or other digital PCR systems have not been validated by QIAGEN for quantifying and determining the size of HEK293 or human residual DNA using QIAcuity HEK293 resDNA Sizing Kit.

Contamination risks

Do not remove the seal on the nanoplates once the amplification is complete. Removing the plate seal increases the risk of contaminating subsequent reactions with amplified product.

All reaction mixtures should be set up in an area separate from that used for DNA isolation in order to minimize the potential for cross-contamination. In addition, use disposable tips containing hydrophobic filters to minimize cross-contamination.

Controls

No-template control (NTC)

NTC reactions should be included in each quantification run in order to detect contamination. NTCs should contain all the components of the reaction, except for the template. Quantification using QIAcuity HEK293 resDNA Sizing Kit is highly sensitive; background DNA may be detected in rare cases due to the high assay sensitivity. Take great care to avoid contamination when pipetting the NTC.

We recommend performing NTC reactions.

Internal positive control (IC)

An internal positive control is used to test for successful amplification and for the presence of PCR inhibitors. Primers, TaqMan® probe, and template for the internal control are all contained in QIAcuity HEK293 resDNA Sizing Kit.

Protocol: Absolute Quantification and Size Determination of HEK293 or Human Residual DNA Using QIAcuity dPCR System

This protocol is optimized for use of QIAcuity HEK293 resDNA Sizing Kit on QIAcuity dPCR System. For general instructions on instrument setup or software instructions, refer to the following:

- *QIAcuity User Manual*: www.qiagen.com/HB-2717
- *QIAcuity Application Guide*: www.qiagen.com/HB-2839

Important points before starting

- Wear laboratory coats, goggles, and gloves throughout the procedure.
- Decontaminate all dPCR workspaces and labware (including pipettes, tube racks, etc.) prior to each experiment to mitigate potential DNA contamination in dPCR assays.
- Store sample materials and control templates separately from other reagents. Ensure physical separation of dPCR setup areas from post-dPCR processing operations.
- Do not remove QIAcuity Nanoplate from its protective sealed bag until immediately before use. Avoid removing the sealer foil from previously used QIAcuity Nanoplates to prevent the release of dPCR product DNA into the environment, which may compromise results.
- Set up all reaction mixtures in an area separate from that used for DNA isolation.
- Use disposable tips containing hydrophobic filters to minimize cross-contamination.
- A fluorescent dye is provided as a component of QIAcuity resDNA Quant Master Mix for reliable detection of proper filling in the dPCR plates.

- Always start with the cycling conditions and imaging settings specified in this handbook.
- Pipetting accuracy and precision affect the consistency of quantification results. Make sure that no air bubbles are introduced into the wells of the dPCR Nanoplates during pipetting.
- DNA samples with an average length of ≥ 20 kb should undergo fragmentation by restriction digestion prior to partitioning. Enzymatic fragmentation of large DNA templates facilitates uniform distribution across QIAcuity Nanoplate.
- The validated enzyme (*Xba*I) employed will not cleave into the amplified sequence. To perform DNA template digestion, add the enzyme directly to the reaction mix and incubate for 10 min at room temperature (15–25°C) at the recommended concentrations.

Things to do before starting

- Thaw kit components if required.
- Mix all kit components before use.

Procedure

1. Prepare a reaction mix with all components except the template as shown in Table 2. Hot start means that samples do not need to be kept on ice during setup or when programming QIAcuity.

Note: Prepare 10% extra volume to ensure enough amount for transferring to the Nanoplates.

2. Dispense the reaction mix into a standard PCR plate, then add template DNA to each well.

Note: Refer to the *QIAcuity Application Guide* (www.qiagen.com/HB-2839) for recommended volumes, as they may vary.

- Transfer the contents from each well of the standard PCR plate into the corresponding wells of a 26k Nanoplate.
- Seal the Nanoplate properly using QIAcuity Nanoplate Seal provided in QIAcuity Nanoplate kits. For sealing instructions, see the *QIAcuity User Manual* (www.qiagen.com/HB-2717).
- If *Xba*I is used, incubate the plate for 10 min at room temperature.

Table 2. Reaction setup for Nanoplate 26k (24-well)

Component	Volume (µL) per reaction	Final concentration
4x QIAcuity resDNA Quant Master Mix	10	1x
20x QIAcuity HEK293 resDNA Sizing Assay (Green Channel and Crimson Channel)	2	1x
10x QN IC Probe Assay* (Yellow Channel)	2	0.5x
Restriction Enzyme (<i>Xba</i> I 10 U/µL)	0.1	0.025 U/µL
QN Internal Control DNA dPCR*	0.16	~1000 copies/µL
Template DNA or HEK Positive Control†	Variable	–
RNase-free Water	Variable	–
Total reaction volume	40	–

* Add 10x QN IC Probe Assay and QN Internal Control DNA dPCR for a multiplex reaction to include an Internal Control.

† For HEK Positive Control the use of 2 µL input volume per reaction is recommended (~1000 copies/µL final concentration).

Thermal cycling and imaging conditions

1. Set the cycling conditions (Table 3) under the dPCR parameters in QIAcuity Software Suite or QIAcuity instrument.
2. Under the dPCR parameters in QIAcuity Software Suite or on QIAcuity instrument, activate all needed channels in Imaging. Start with the imaging settings in Table 4.
3. Place the Nanoplate into QIAcuity instrument and start the dPCR program.

Table 3. Cycling conditions

Step	Time	Temperature (°C)
Initial heat activation	2 min	95
2-step cycling (40 cycles)		
Denaturation	15 s	95
Combined annealing/extension	30 s	60

Table 4. Imaging settings*

Channel	Exposure (ms)	Gain
Green	500	6
Yellow	500	6
Crimson	300	4

* Imaging settings might need to be adjusted according to the assay. Always start with the recommended settings.

Data analysis

1. To set up a plate layout according to the experimental design, open QIAcuity Software Suite and define the reaction mixes, samples, and controls. Plate layout can be defined before or after the nanoplate run.

Note: Refer to the *QIAcuity User Manual* for details about setting up the plate layout. After the nanoplate run, the raw data are automatically sent to QIAcuity Software Suite.

2. For data analysis, open QIAcuity Software Suite and select one nanoplate for analysis in Plate Overview of the Software Suite.

Note: Refer to the *QIAcuity Application Guide* and *QIAcuity User Manual* for details on how to analyze the data to get absolute quantification data.

Sizing and concentration analysis

Important: QIAcuity Software Suite version 3.0 or newer is required to use QIAcuity HEK293 DNA Sizing Tool (www.qiagen.com/HEK293-sizing).

1. Use absolute quantification in QIAcuity Software Suite to calculate the target HEK293 DNA concentration in the reaction in copies per microliter.
2. Export the results from QIAcuity Software Suite as a CSV file by selecting **Channel** under “Analyze per” (Figure 1). Select only the **Green** and **Crimson** channels and choose the wells you want to include for the fragmentation size calculation.

Select **Show results**.

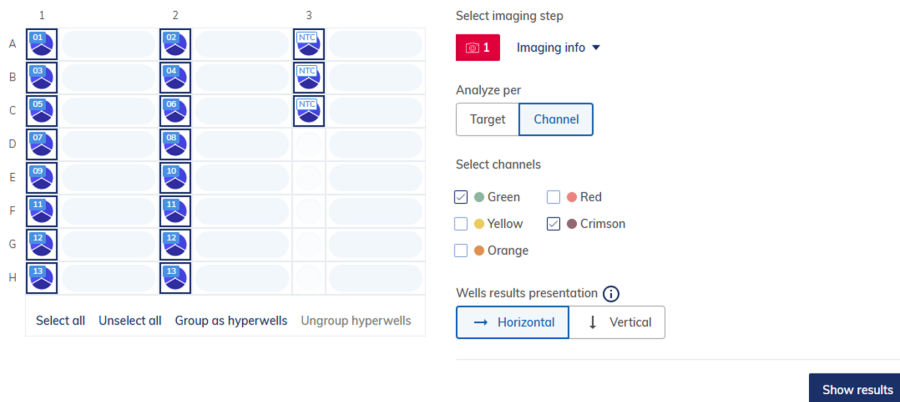


Figure 1. Exporting results as CSV file.

3. In the List tab, export the results by selecting **Export to CSV...**, and then **Current results** (Figure 2).

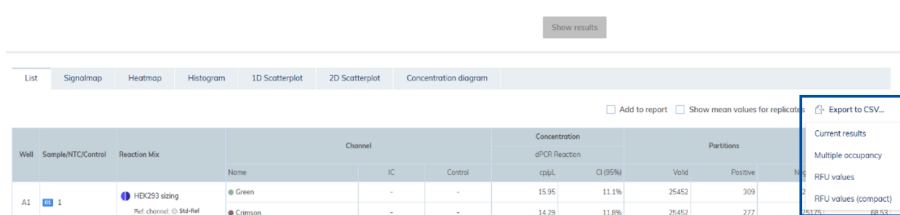


Figure 2. Exporting the data as a CSV file.

4. Open QIAcuity HEK293 DNA Sizing Tool and import the CSV file by selecting **Import and Calculate DNA Size** (Figure 3).

Note: Both regional and Excel® settings must use the US format for the decimal separator.



Figure 3. Import the data into the QIAcuity HEK293 DNA Sizing Tool by clicking the “Import and Calculate DNA Size” button. After importing and analysis, you may select **Export to CSV** to save the processed results for later steps in the workflow.

The calculated median fragmented sizes can be observed in the new sheet tab named “Imported Data”(Figure 4). The calculated fragment size and its confidence interval (CI) value are added to the last column of the Excel sheet (Figure 5).

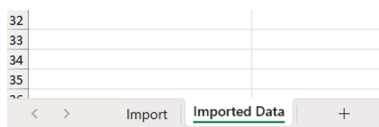


Figure 4. Analysis results are stored in the “Imported Data” tab.

AN	AO	AP	AQ	AR
Minimum valid partitions % value	Minimum valid partitions % result	DNA Size in bp	CI	
-	-	>2000bp		
-	-	>2000bp	0%	
-	-	>2000bp		
-	-	>2000bp	0%	
-	-	>2000bp		

Figure 5. The calculated fragment size and its confidence interval (CI) value are added to the last column in the Excel sheet.

Sizing Data can be exported to a CSV file by selecting **Export to CSV** in the “Import” tab of the QIAcuity HEK293 DNA Sizing Tool Excel file (Figure 3 above).

It is possible to convert Software Suite output concentrations from copies per microliter to picograms per microliter using conversion factors provided (Table 5) and the example

calculation provided (Table 6). We suggest using the short amplicon system preferably for the mass calculation.

Table 5. Converting output concentrations

Target copy number (copies per genome)	Amplicon sizes (bp)	Conversion factor (copies/μL to pg/μL)
>20	~83 (short)	0.129
>20	~345 (long)	0.143

Table 6. Examples of converting HEK293 DNA concentrations from copies/μL to pg/μL

HEK293 DNA concentration (copies/μL)	HEK293 DNA mass concentration	
	Short amplicon (pg/μL)	Long amplicon (pg/μL)
10	1.29	1.43
20	2.58	2.86
100	12.9	14.3
1000	129	143

Troubleshooting

This troubleshooting guide may be helpful in solving any problems that may arise. For more information, visit www.qiagen.com/FAQ/FAQList.aspx for Frequently Asked Questions at our Technical Support Center (for contact information, visit www.qiagen.com).

Comments and suggestions

PCR

No positive partitions	Sample input below LOD. Sample with low DNA amount or too highly diluted: Try reducing dilution steps. Increase sample input into PCR. Imaging setup: Check channel choice and match with probe dyes. Prolonged initial denaturation: Ensure that PCR is run with an initial denaturation for 2 min at 95°C. Prolonged denaturation might negatively affect PCR performance.
Infinity signal / no negative partitions	Sample dilution: Increase dilution to fit into the dPCR concentration range.
DNA concentration higher than expected	DNA dilution: Re-dilute sample.
DNA concentration lower than expected	Sample might be inhibiting, nucleases might degrade the sample/interfere the PCR, or proteases might interfere the PCR. Dilute or include sample preparation for the sample.
Inconsistent DNA concentrations	See “Handling and storage”, next subsection.

Handling and storage

Inconsistent results	Make sure to mix reagents before each use. Lack of homogeneity might lead to inconsistent results. Avoid repeated freeze–thaw cycles of kit reagents. Poor repeatability between different operators: Ensure operators are following the protocols. When using automatic pipettors, identical pipetting settings should be used by all operators (e.g., pre-dispense mode recommended over direct pipetting mode).
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Comments and suggestions

Pipetting volume

Follow the lower and upper limits of your pipette. We recommend not to pipet volumes lower than 1 μ L. Take viscosity of reagents into consideration and adjust pipetting setup accordingly.

Appendix A: Recommendations on Dilution Steps throughout the Processing Workflow

For most applications, samples can be processed directly without DNA extraction, streamlining the workflow and saving time. However, if samples contain substances known to interfere with digital PCR or have high levels of genomic DNA, it may be necessary to dilute them before setting up the reaction. The optimal dilution factor depends on the sample type and its origin within the production process; early-stage materials like cell lysates or culture media may require higher dilution, while samples from purification steps or finished products typically need less. To determine the best dilution for a given sample, start with recommended ranges and adjust as needed based on experimental results. Always refer to the kit guidelines for recommended DNA input amounts (Table 7) and adjust sample preparation accordingly to achieve optimal results with the QIAcuity platform.

Table 7. Overview of total dilutions

Step	Minimum pre-dilution ratio for 20 µL sample input per reaction	Total dilution in dPCR
Cell culture or cell lysates	1:2.5	5×
Buffers used for purification	1:2.5	5×
AAVs in PBS	1:3	6×
Gammaretroviruses/Lentiviruses in PBS	1:3	6×

Appendix B: DNA Loading Amounts

High levels of DNA can saturate the dPCR reaction. Therefore, a dilution of the samples might be necessary. A DNA loading range for the Nanoplate 26k is given in Table 8.

Table 8. Overview of quantifiable range of HEK293 and human DNA

Sample Type	DNA amount per reaction	Equals
HEK293 DNA	4 pg to 28 ng	~0.5 to ~2800 cells (hypotriploid ~9.6 pg per cell)
Human DNA	4 pg to 28 ng	~0.75 to ~4000 cells (diploid ~6.6 pg per cell)

Appendix C: Protocol for Defining a Conversion Factor Specific to Your HEK293 Cell Line

In digital PCR, the conversion factor is a calculated value that links the number of DNA copies detected per microliter (copies/ μL) to the corresponding DNA mass concentration (nanograms, picograms, or femtograms per microliter). This factor is essential for translating absolute quantification results (copy number) into DNA mass, which is often required for regulatory compliance, process monitoring, and comparison with other analytical methods. The conversion factor depends on the genome size and ploidy of the cell line, and can vary due to genetic drift or changes in chromosome number during HEK293 cell culture passages.

Genomic DNA isolation

Isolate high-quality genomic DNA from your HEK cell line using a validated extraction method, such as QIAamp DNA Mini Kit. Ensure complete removal of RNA by including an RNase treatment step during extraction.

DNA quantification

Measure the DNA concentration using a spectrophotometric method with a fluorescent dye specific for double-stranded DNA (e.g., Qubit dsDNA assay). Record the DNA concentration in nanograms per microliter or picograms per microliter.

Digital PCR setup

Prepare a dilution series of your genomic DNA to achieve concentrations within the linear range of your dPCR system (ideally 200–2000 copies/ μL). Set up dPCR reactions using QIAcuity HEK293 resDNA Sizing Kit and run according to the protocol above.

DNA analysis

After the dPCR run, determine the number of DNA copies per microliter for each dilution. Use the measured DNA mass and the corresponding copy number to calculate the conversion factor.

Calculation

The conversion factor (CF) is calculated as

$$CF = \frac{C_m}{C_N}$$

where C_m is the DNA mass concentration in picograms per microliter and C_N represents the copy number in copies per microliter. For each dilution, divide the measured DNA mass concentration by the detected copy number. Average the results from multiple dilutions for accuracy. For example,

$$CF = \frac{C_m}{C_N} = \frac{1.29 \frac{\text{pg}}{\mu\text{L}}}{10 \frac{\text{copies}}{\mu\text{L}}} = 0.129 \frac{\text{pg}}{\text{copies}}.$$

The concentration of a diluted sample (C_{sample}) in mass per volume (e.g., picograms per microliter) is calculated using the equation

$$C_{\text{sample}} = CF \times C_{\text{dPCR}} \times DF \times \frac{40 \mu\text{L}}{V_{\text{dPCR}}}$$

where CF is the conversion factor, C_{dPCR} is the target concentration of dPCR in copies per microliter, DF is the dilution factor used to dilute the sample before dPCR, and V_{dPCR} is the input volume (in microliters) of the diluted sample for dPCR. For example,

$$C_{\text{sample}} = 0.129 \frac{\text{pg}}{\text{copies}} \times 10 \frac{\text{copies}}{\mu\text{L}} \times 10 \times \frac{40 \mu\text{L}}{20 \mu\text{L}} = 25.8 \frac{\text{pg}}{\mu\text{L}}.$$

Application

Use the established conversion factor to translate future dPCR results (copies per microliter) into DNA mass concentration for your specific cell line.

Repeat the determination if you observe significant genomic changes.

Note: Cell lines can undergo genetic changes over time, affecting genome size and copy number. It is recommended to periodically verify the conversion factor, especially when working with new passages or after extensive culturing.

Ordering Information

Product	Contents	Cat. no.
QIAcuity HEK293 resDNA Sizing Kit	For 96 reactions: QIAcuity resDNA Quant Master Mix, HEK293 resDNA Sizing Assay, QN IC Probe Assay, Positive Control, Internal Control DNA dPCR, RNase-free Water	250333
QIAcuity Nanoplate 26K 24-well (10)	10 QIAcuity Nanoplates 26K with 24 wells 11 Nanoplate Seals	250001
QIAcuity One, 5plex Instrument	One-plate digital PCR instrument for detecting up to 5 fluorescent dyes, roller, USB flash memory and QIAcuity Software Suite: includes 1 preventive maintenance visit. 1 year warranty on labor, travel, and parts also included.	911020
QIAcuity Four Instrument	Four-plate digital PCR instrument for detecting up to 5 fluorescent dyes, notebook computer, barcode scanner, roller, USB flash memory and QIAcuity Software Suite: includes installation, training, and 1 preventive maintenance visit. 1 year warranty on labor, travel, and parts.	911040
QIAcuity Eight Instrument	Eight-plate digital PCR instrument for detecting up to 5 fluorescent dyes, notebook computer, barcode scanner, nanoplate roller, USB flash memory and QIAcuity Software Suite: includes installation, training, and 1 preventive maintenance visit. 1 year warranty on labor, travel, and parts.	911050
Related products		
QIAcuity Residual DNA Quantification Kits and Standards	QIAcuity <i>E. coli</i> / CHO / HEK293 resDNA Quant Master Mix (4x) lyophilized, Positive Control, Internal Control, RNase-free Water, and respective Standard Kits	250220– 250225
QIAcuity Mycoplasma Quant Kit	For 96 reactions: OneStep Advanced Probe Master Mix (4x), OneStep RT Mix, Positive Control, Internal Control, OneStep Enhancer GC, RNase-free Water	250261
QIAcuity Mycoplasma CFU Standards Kits	For the detection of frequently occurring mycoplasma contaminants (<i>Mycoplasma orale</i> , <i>Mycoplasma gallisepticum</i> , or others). QIAcuity Mycoplasma 10 CFU Standard, QIAcuity Mycoplasma Negative Control, lyophilized	250262– 250271

Product	Contents	Cat. no.
QIAcuity RCL Quant Kit	For 96 reactions: QIAcuity MasterMix, QN Internal Control DNA dPCR, QN IC Probe Assay, VSV-G Assay, Positive Control, RNase-free Water	250322
QIAcuity Cell and Gene Therapy (CGT) dPCR Assays	For 500 × 12 µL reactions (20x): ITR 2/5, bGH polyA, GFP, WPRE, SV40 promoter, SV40 polyA, CMV promoter, hGH polyA, CMV enhancer, AMP resistance, Albumin, RPP30, RPL32, Puro [®] , Kan [®] /Neo [®] , Psi, RRE, 5' LTR	250230–250256, 250300–250321
CGT Viral Vector Lysis Kit (100)	For 100 DNase I reactions (50 µL): CGT Sample Stabilizer, CGT DNase I Buffer, DNase I, CGT Lysis Buffer, CGT Dilution Buffer, and Nuclease-free Water	250272
CGT Viral Vector Lysis Kit (1000)	For 1000 DNase I reactions (50 µL): CGT Sample Stabilizer, CGT DNase I Buffer, DNase I, CGT Lysis Buffer, CGT Dilution Buffer, and Nuclease-free Water	250273
CGT Lentivirus Lysis Kit (100)	For 100 DNase I (50 µL) and Lysis reactions with Proteinase K (40 µL): Proteinase K, DNase I, CGT PBS Buffer, Buffer RDD, CGT Dilution Buffer, and Nuclease-free Water	250323
CGT Lentivirus Lysis Kit (1000)	For 1000 DNase I (50 µL) and Lysis reactions with Proteinase K (40 µL): Proteinase K, DNase I, CGT PBS Buffer, Buffer RDD, CGT Dilution Buffer, and Nuclease-free Water	250324
QIAcuity Probe PCR Kit (1 mL, 5 mL, 25 mL)	Ready-to-use 4x concentrated Master Mix, water	250101-250103
QIAcuity OneStep Advanced Probe Kit (1 mL, 5 mL)	Ready-to-use 4x concentrated Master Mix, water	250131, 250132
QIAcuity MasterMix (2x1 mL)	2 × 1 mL 4x concentrated QIAcuity MasterMix, 3 × 1.9 mL RNase-free Water	1133251
QIAcuity Nanoplate 8.5K 96-well (10)	10 QIAcuity Nanoplates 8.5K with 96 wells 11 Nanoplate Seals	250021

Product	Contents	Cat. no.
QIAcuity Nanoplate 8.5K 24-well (10)	10 QIAcuity Nanoplates 8.5K with 24 wells 11 Nanoplate Seals	250011
Nanoplate Seals (11)	11 Nanoplate Seals	250099

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

Limited License Agreement for QIAcuity HEK293 resDNA Sizing Kit

Use of this product signifies the agreement of any purchaser or user of the product to the following terms:

1. The product may be used solely in accordance with the protocols provided with the product and this Instructions for Use and for use with components contained in the panel only. QIAGEN grants no license under any of its intellectual property to use or incorporate the enclosed components of this panel with any components not included within this panel except as described in the protocols provided with the product, this Instructions for Use, and additional protocols available at www.qiagen.com. Some of these additional protocols have been provided by QIAGEN users for QIAGEN users. These protocols have not been thoroughly tested or optimized by QIAGEN. QIAGEN neither guarantees them nor warrants that they do not infringe the rights of third-parties.
2. Other than expressly stated licenses, QIAGEN makes no warranty that this panel and/or its use(s) do not infringe the rights of third-parties.
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Document Revision History

Date	Description
01/2026	Initial release

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