

The way forward in digital PCR.

Pharma analytics

Discover absolute quantitation with the QuantStudio Absolute Q Digital PCR System and the SEQ portfolio of analytical solutions

In biomanufacturing processes, where precision and accuracy are crucial, digital PCR (dPCR) has emerged as a valuable tool, offering high sensitivity, absolute quantification, and powerful multiplexing capabilities. Harness the power of dPCR for quality control applications, such as viral and residual DNA quantitation, with the Applied Biosystems™ QuantStudio™ Absolute Q™ Digital PCR System and the Applied Biosystems™ SEQ portfolio of high-performance analytical testing solutions.

This powerful combination delivers:

- Accurate, sensitive quantitation of your target of interest
- Easy-to-use, integrated sample-to-results system, featuring Applied Biosystems™ TaqMan™ dPCR master mixes and TaqMan™ primer/probe sets
- Simple, streamlined dPCR workflow delivers results in about three hours
- Optional manual or automated sample preparation optimized for quantitative recovery of samples from complex matrices



All-inclusive kits for residual DNA or viral quantitation

Successful approval of biologics depends on robust product characterization—helping to ensure the safety, purity, and potency of the final drug product. SEQ digital PCR solutions include assay kits for both residual host cell DNA quantitation and viral vector titer and quantitation, with performance that meets or exceeds regulatory guidelines.

Residual host cell DNA

Applied Biosystems™ resDNASEQ™ residual DNA kits offer complete assay solutions specifically designed to detect both fragmented and unfragmented DNA, helping to ensure consistent and reliable quantitation. Developed using rich bioinformatics and a sophisticated primer–probe design pipeline, then internally validated to help ensure performance standards, resDNASEQ kits deliver highly accurate and consistent results—kit to kit, lot to lot, and year to year.



Applied Biosystems™
resDNASEQ™ dPCR
CHO DNA Kit



Applied Biosystems™
resDNASEQ™ dPCR
E. coli DNA Kit



Applied Biosystems™
resDNASEQ™ dPCR
Sf9/Baculovirus DNA Kit



Applied Biosystems™
resDNASEQ™ dPCR
E1A DNA Fragment Sizing Kit



Applied Biosystems™
resDNASEQ™ dPCR
HEK293 DNA Kit

Viral titer determination

Applied Biosystems™ ViralSEQ™ lentivirus dPCR titer kits are easy-to-use, highly sensitive, and robust dPCR solutions for lentivirus characterization, both physical and proviral, that enable validation per industry guidelines. For gene therapy development, the Applied Biosystems™ ViralSEQ™ dPCR AAV Titer Kit offers reproducible quantitation of AAV particles, independent of serotype. It delivers exceptional sensitivity and consistency, outperforming conventional DNA blotting or ELISA methods.



Applied Biosystems™
ViralSEQ™ dPCR Lentivirus
Physical Titer Kit



Applied Biosystems™
ViralSEQ™ dPCR Lentivirus
Proviral Titer Kit



ViralSEQ dPCR
AAV Titer Kit

Discover a simplified digital PCR workflow to get answers faster

The QuantStudio Absolute Q Digital PCR System consists of just one instrument, consolidating all steps required into a single plate and transforming a multi-step, multi-instrument process into a simple, familiar, one-step, qPCR-like workflow.

Prepare sample*



Thermo Scientific™ KingFisher™
Apex system with Applied Biosystems™
PrepSEQ™ kit and DNase treatment

Set up reaction



resDNASEQ or
ViralSEQ dPCR kit

Run digital PCR



QuantStudio Absolute Q
Digital PCR System

Analyze data



Applied Biosystems™
QuantStudio™
Absolute Q™ Software

~2.5 hr

Setup to analysis: ~3 hours (dPCR run ~90 mins)

* Not all experiments require nucleic acid extraction.

Ordering information

Description	Quantity	Cat. No.
Residual host cell DNA quantitation		
resDNASEQ dPCR CHO DNA Kit	100 reactions	A59366
resDNASEQ dPCR HEK293 DNA Kit	100 reactions	A59365
resDNASEQ dPCR <i>E. coli</i> DNA Kit	100 reactions	A57017
resDNASEQ dPCR E1A DNA Fragment Sizing Kit	100 reactions	A55852
resDNASEQ dPCR Sf9/Baculovirus DNA Kit	100 reactions	A59319
Viral vector determination		
ViralSEQ dPCR Lentivirus Physical DNA Titer Kit	100 reactions	A59317
ViralSEQ dPCR Lentivirus Proviral DNA Titer Kit	100 reactions	A59318
ViralSEQ dPCR AAV Titer Kit	100 reactions	A59364
Sample preparation and automation (optional)		
PrepSEQ Residual DNA Sample Preparation Kit	100 reactions	4413686
PrepSEQ Nucleic Acid Sample Preparation Kit	100 reactions	A50485
Pharma KingFisher Apex 96 Deep-Well Magnetic Particle Processor	1 instrument	A57715
Digital PCR system		
QuantStudio Absolute Q Digital PCR System	1 instrument	A52864
Absolute Q DNA Digital PCR Master Mix (5X)	200 reactions	A52490
Instrument service		
IQ/OQ Service for the QuantStudio Absolute Q system	1 service	A53878
CSV Service for the QuantStudio Absolute Q system	1 service	A55623
IQ/OQ Service for the Pharma KingFisher Apex system	1 service	A31532

Explore digital PCR solutions at thermofisher.com/resdnaseq
or thermofisher.com/viraltiter

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