Agilent

Trusted Answers

Agilent TapeStation and Bioanalyzer Systems

Systems, consumables, and supplies

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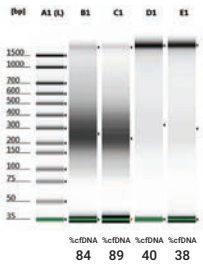
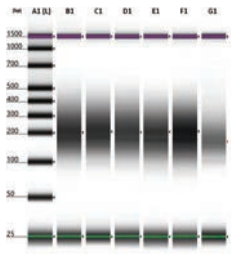
Agilent TapeStation Systems

A complete solution for true end-to-end electrophoretic quality control for DNA and RNA samples
Agilent TapeStation systems are automated electrophoresis solutions for quality control (QC) of DNA and RNA samples. The TapeStation systems are all-in-one platforms, which include instrumentation, data processing software, reagents, and ready-to-use ScreenTape devices for analysis of sample size, quantity, and integrity. Delivering highly accurate and precise analytical evaluation, the systems fit perfectly into next-generation sequencing (NGS), biobank, or vaccine development workflows for low to high sample throughput.

A



B



cfDNA samples with different amounts of high molecular weight DNA contamination (A), and NGS libraries (B)

4200 TapeStation key benefits

- Fully automated sample processing for up to 96 samples
- Sample loading from two 8-tube strips or a 96-well plate with as little as 1 to 2 µL of sample
- Full sample scalability from 1 to 96 samples with constant cost per sample
- Reliable, reproducible results within 1 to 2 minutes per sample and less than 90 minutes for 96 samples

4150 TapeStation key benefits

- Sample loading from two 8-tube strips with as little as 1 to 2 µL of sample
- Full sample scalability from 1 to 16 samples with constant cost per sample
- Reliable, reproducible results within 1 to 2 minutes per sample and less than 20 minutes for 16 samples
- Small footprint saves precious bench space in your laboratory

True end-to-end sample QC during NGS workflows

The TapeStation systems offer a full range of DNA and RNA applications for all steps within any NGS workflow:

- Integrity standards for RNA (RNA integrity number equivalent, RIN^e) and genomic DNA (DNA integrity number, DIN)
- QC of cell-free DNA with qualification based of the calculation of %cfDNA
- QC of fragmented RNA (DV_{200}) and genomic DNA, e.g. DNA or RNA, extracted from FFPE tissue
- QC of adapter ligated and amplified NGS libraries
- Analysis of post-capture amplified libraries after target enrichment

As the 4200 TapeStation system is compatible with 96 well plates, the instrument is the perfect sample QC tool for customers with higher-throughput needs.

For labs handling smaller numbers of samples, the 4150 TapeStation system for 1 to 16 samples is the affordable, entry-level alternative.

Agilent TapeStation systems

Part Number	Description	Quantity
G2991BA	4200 TapeStation system For DNA and RNA analysis. Includes the 4200 TapeStation instrument, laptop with TapeStation software, vortexer, accessories, consumables, user information, and installation and introduction services.	1 system
G2992AA	4150 TapeStation system For DNA and RNA analysis. Includes the 4150 TapeStation instrument, TapeStation software, vortexer, accessories, consumables user information, and introduction services.	1 system
G2999AA	1 TapeStation software laptop PC bundle, laptop PC with TapeStation software pre-installed.	1 PC

TapeStation software

Description
TapeStation software security module Software for instrument administration, control and analysis of data generated by the Agilent TapeStation systems supporting FDA 21 CFR Part 11, EU Annex 11, and GxP compliance requirements. No purchase or licenses required. Download free of charge from: **www.agilent.com/genomics/tapestation-sw-security-module**

Accessories and spare parts

Part Number	Description	Quantity
5042-8502	96-well sample plates (for 4200 TapeStation system)	25 plates
5067-5154	96-well plate foil seal (for 4200 TapeStation system)	100 foils
5067-5599	Loading tips (112 tips/pk)	10 packs
5067-5598	Loading tips (112 tips/pk)	1 pack
401428	Optical tube strips, 8x strip	1 box of 120
401425	Optical caps, 8x strip	1 box of 120
5067-5601	TapeStation Test Tape	1 test tape
5067-5783	Needle Change Cartridge	1 cartridge
G2991-40007	ScreenTape Rack (for 4200 TapeStation system)	1 rack
5067-5786	32-Pin Electrode Cartridge	1 cartridge
G2992-40042	Tube Strip Holder	1 holder
G2992-40046	Tip Waste Bucket	1 bucket
5188-8047	USB cable, male-A – male-B	1 cable
G2992-68003	Upper Tapenest cover	1 cover
G2992-40014	Lower Tapenest cover	1 cover

Services

For more details on our service portfolio, please contact your sales representative or Agilent's Worldwide Sales and Support Phone Assistance. **www.agilent.com/chem/contactus**

TapeStation DNA ScreenTape and Reagents

The DNA ScreenTape assays for the Agilent TapeStation systems are ideal for sample QC of input genomic or cell-free DNA and downstream library QC within the next-generation sequencing workflow. Select the sizing range appropriate for your application.

DNA consumables and reagents

Part Number	Description	Quantity
D1000 ScreenTape assay – 35 to 1,000 bp		
5067-5582	D1000 ScreenTape For the analysis of DNA from 35 to 1,000 bp. Includes 7 ScreenTape devices.	For 112 samples
5067-5583	D1000 reagents For the analysis of DNA from 35 to 1,000 bp. Includes ladder and sample buffer. Order with 5067-5582.	For 112 samples
5067-5586	D1000 ladder For the analysis of DNA from 35 to 1,000 bp. Includes 10 µL ladder.	
5067-5602	D1000 sample buffer For the analysis of DNA from 35 to 1,000 bp. Includes 400 µL sample buffer.	
5067-5584	High Sensitivity D1000 ScreenTape For the high sensitivity analysis of DNA from 35 to 1,000 bp. Includes 7 ScreenTape devices.	For 112 samples
5067-5585	High Sensitivity D1000 reagents For the high sensitivity analysis of DNA from 35 to 1,000 bp. Includes ladder and sample buffer. Order with 5067-5584.	For 112 samples
5067-5587	High Sensitivity D1000 ladder For the high sensitivity analysis of DNA from 35 to 1,000 bp. Includes 20 µL ladder.	
5067-5603	High Sensitivity D1000 sample buffer For the high sensitivity analysis of DNA from 35 to 1,000 bp. Includes 300 µL sample buffer.	

TapeStation DNA ScreenTape and Reagents

DNA consumables and reagents continued

Part Number	Description	Quantity
D5000 ScreenTape assay – 100 to 5,000 bp		
5067-5588	D5000 ScreenTape For the analysis of DNA from 100 to 5,000 bp. Includes 7 ScreenTape devices.	For 105 samples
5067-5589	D5000 reagents For the analysis of DNA from 100 to 5,000 bp. Includes ladder and sample buffer. Order with 5067-5588.	For 105 samples
5067-5590	D5000 ladder For the analysis of DNA from 100 to 5,000 bp. Includes 10 µL ladder.	
5067-5592	High Sensitivity D5000 ScreenTape For the high sensitivity analysis of DNA from 100 to 5,000 bp. Includes 7 ScreenTape devices.	For 105 samples
5067-5593	High Sensitivity D5000 reagents For the high sensitivity analysis of DNA from 100 to 5,000 bp. Includes ladder and sample buffer. Order with 5067-5592.	For 105 samples
5067-5594	High Sensitivity D5000 ladder For the high sensitivity analysis of DNA from 100 to 5,000 bp. Includes 20 µL ladder.	
Cell-free DNA ScreenTape assay – 50 to 800 bp		
5067-5630	Cell-free DNA ScreenTape For the analysis of cell-free DNA from 50 to 800 bp. Includes 7 ScreenTape devices.	For 112 samples
5067-5631	Cell-free DNA reagents For the analysis of cell-free DNA from 50 to 800 bp. Includes ladder and sample buffer. Order with 5067-5630.	For 112 samples
5067-5632	Cell-free DNA ladder For the analysis of cell-free DNA from 50 to 800 bp. Includes 50 µL ladder.	
5067-5633	Cell-free DNA Sample Buffer For the analysis of cell-free DNA from 50 to 800 bp. Includes 300 µL sample buffer.	
Genomic DNA ScreenTape assay – 200 to > 60,000 bp		
5067-5365	Genomic DNA ScreenTape For the analysis of genomic DNA from 200 to > 60,000 bp. Includes 7 ScreenTape devices.	For 105 samples
5067-5366	Genomic DNA reagents For the analysis of genomic DNA from 200 to > 60,000 bp. Includes ladder and sample buffer. Order with 5067-5365.	For 105 samples
5067-5634	High Sensitivity Genomic DNA ScreenTape For the high sensitivity analysis of genomic DNA from 200 to > 60,000 bp. Includes 7 ScreenTape devices.	For 112 samples
5067-5635	High Sensitivity Genomic DNA reagents For the high sensitivity analysis of genomic DNA from 200 to > 60,000 bp. Includes ladder and sample buffer. Order with 5067-5634.	For 112 samples

TapeStation DNA ScreenTape and Reagents

DNA specifications

Analytical Specifications	D1000 ScreenTape	High Sensitivity D1000 ScreenTape	D5000 ScreenTape	High Sensitivity D5000 ScreenTape
Sizing range	35 to 1,000 bp	35 to 1,000 bp	100 to 5,000 bp	100 to 5,000 bp
Typical resolution	35 to 300 bp: 15% 300 to 1,000 bp: 10%	35 to 300 bp: 15% 300 to 1,000 bp: 10%	400 to 5,000 bp: 15%	400 to 5,000 bp: 15%
Sensitivity[1]	0.1 ng/µL	5 pg/µL	0.1 ng/µL	5 pg/µL
Sizing precision	5% CV[2]	5% CV[2]	5% CV[4]	10% CV[4]
Sizing accuracy	±10% [2,3]	±10% [2,3]	±10%[4]	±15%[4]
Quantitative precision	0.1 to 1 ng/µL: 15% CV 1 to 50 ng/µL: 10% CV	15% CV	0.1 to 1 ng/µL: 15% CV 1 to 50 ng/µL: 10% CV	15% CV
Quantitative accuracy	±20% [2]	±20% [2]	±20%	±25%
Quantitative range	0.1 to 50 ng/µL	10 to 1,000 pg/µL	0.1 to 50 ng/µL	10 to 1,000 pg/µL
Maximum buffer concentration in sample	20 mM KCl 60 mM phosphate buffer 60 mM guanidine-HCl 240 mM NaCl 60 mM NaOAc	7 mM KCl 20 mM phosphate buffer 20 mM guanidine-HCl 80 mM NaCl 20 mM NaOAc	250 mM KCl 250 mM Tris-HCl 125 mM NaCl 50 mM NaOAc 25 mM $MgCl_2$ 25 mM BSA 25 mM guanidine-HCl	25 mM KCl 25 mM Tris-HCl 12.5 mM NaCl 5 mM NaOAc 2.5 mM $MgCl_2$ 2.5 mM BSA 2.5 mM guanidine-HCl
Physical Specifications				
Analysis time	16 samples < 20 min 96 samples < 90 min	16 samples < 20 min 96 samples < 105 min	15 samples < 25 min 96 samples < 135 min	15 samples < 20 min 96 samples < 120 min
Samples per consumable	16	16	15	15
Sample volume required	1 µL	2 µL	1 µL	2 µL
Kit stability	6 months	6 months	6 months	6 months
Kit size	112 samples	112 samples	105 samples	105 samples

[1] *Signal-to-noise >3 (single peak)*
[2] *Measured using one ladder per ScreenTape device*
[3] *Sizing accuracy for analysis with electronic ladder: ±20%*
[4] *Determined using ladder as sample*

DNA application notes and technical overviews

Publication Number	Description
5994-6079EN	Detection of Adapter Dimers in NGS Libraries with Agilent Fragment Analyzer and TapeStation Systems
5994-2233EN	Quality Control of NGS Libraries with Daisy Chains
5994-0327EN	Quality Control in Illumina Sequencing Workflows Using the TapeStation System
5994-0277EN	Performance Characteristics of the D1000 and High Sensitivity D1000 ScreenTape Assays for the 4150 TapeStation System
5994-0679EN	Performance Characteristics of the D5000 and High Sensitivity D5000 ScreenTape Assays for the 4150 TapeStation System

TapeStation DNA ScreenTape and Reagents

DNA specifications continued

Analytical Specifications	Genomic DNA ScreenTape	High Sensitivity Genomic DNA ScreenTape	Cell-free DNA ScreenTape
Sizing range	200 to > 60,000 bp	200 to > 60,000 bp	50 to 800 bp
Sensitivity[1]	0.5 ng/µL	20 pg/µL	20 pg/µL
Sizing precision[2]	200 to 15,000 bp: 15% CV	200 to 15,000 bp: 20% CV	10% CV
Sizing accuracy[2]	200 to 15,000 bp: ±15%	200 to 15,000 bp: ±20%[3]	±15%[4]
Quantitative precision	15% CV	20% CV	15% CV[2]
Quantitative accuracy	±20%	±25%	±20%[2]
Quantitative range	10 to 100 ng/µL	0.5 to 10 ng/µL	100 to 4,000 pg/µL
Quality score	DIN	DIN	%cfDNA
DIN functional range[5]	5 to 300 ng/µL	0.25 to 10 ng/µL	—
%cfDNA functional range	–	–	100 to 5,000 pg/µL
Maximum buffer concentration in sample	10 mM $MgCl_2$ 50 mM NaCl 10 mM NaOAc 10% ethanol 10% 2-propanol, 1 µg/µL glycogen	200 ng/µL glycogen 3% 2-propanol 3% ethanol 0.5 mM NaOAc 2.5 mM NaCl 2.5 mM guanidine thiocyanate or 10 mM Tris 0.1 mM EDTA	25 mM NaCl 25 mM KCl 3 mM EDTA 0.1% NaN_3 5 mM phosphate buffer 10% ethanol 10% 2-propanol
Physical specifications			
Analysis time	15 samples < 25 min 96 samples < 140 min	16 samples < 30 min 96 samples < 180 min	16 samples < 25 min 96 samples < 150 min
Samples per consumable	15	16	16
Sample volume required	1 µL	2 µL	2 µL
Kit stability	6 months	6 months	6 months
Kit size	105 samples	112 samples	112 samples

[1] Signal/noise > 3 (single peak)
[2] Determined using ladder as sample
[3] Sizing accuracy applicable for analysis with run ladder
[4] Sizing accuracy for analysis with electronic ladder: +/- 20%
[5] DIN - DNA integrity number

DNA application notes and technical overviews, continued

Publication Number	Description
5994-6545EN	Detection of Contaminating High Molecular Weight DNA with the Cell-Free DNA ScreenTape Assay
5994-7119EN	Correlating NGS Success with Sample Input Quality: a Large Scale Study
5994-4787EN	FFPE Sample Quality Control for the MGISEQ-2000 Sequencing Platform with the Agilent TapeStation Systems
5994-0497EN	Performance Characteristics of the Genomic DNA ScreenTape Assay for the 4150 TapeStation System
5994-1390EN	Performance Characteristics of the Cell-Free DNA ScreenTape Assay
5994-8529EN	Performance Characteristics of the High Sensitivity Genomic DNA ScreenTape Assay for the TapeStation Systems

This list only provides an overview of selected DNA application notes.
Visit our website at **www.agilent.com/en/product/automated-electrophoresis/tapestation-systems** for a complete list of all available application and technical notes.

TapeStation RNA ScreenTape and Reagents

The RNA ScreenTape assays provide a fully automated, efficient, and reliable RNA analysis for RNA characterization and quality assessment. The RNA integrity number equivalent (RIN^e) provides an instant and objective evaluation of total RNA degradation.

RNA consumables and reagents

Part Number	Description	Quantitiy
5067-5576	RNA ScreenTape For the analysis of total RNA down to a sensitivity of 5 ng/µL. Includes 7 ScreenTape devices.	For 112 samples
5067-5577	RNA ScreenTape sample buffer For the analysis of total RNA down to a sensitivity of 5 ng/µL. Includes 600 µL sample buffer. Order with 5067-5576.	For 112 samples
5067-5578	RNA ScreenTape ladder For the analysis of total RNA down to a sensitivity of 5 ng/µL. Includes 10 µL ladder. Order with 5067-5576 and 5067-5577.	
5067-5579	High Sensitivity RNA ScreenTape For the high sensitivity analysis of total RNA down to 100 pg/µL. Includes 7 ScreenTape devices.	For 112 samples
5067-5580	High Sensitivity RNA ScreenTape sample buffer For the high sensitivity analysis of total RNA down to 100 pg/µL. Includes 250 µL sample buffer. Order with 5067-5579.	For 112 samples
5067-5581	High Sensitivity RNA ScreenTape ladder For the high sensitivity analysis of total RNA down to 100 pg/µL. Includes 10 µL ladder. Order with 5067-5579 and 5067-5580.	

TapeStation RNA ScreenTape and Reagents

RNA specifications

Analytical Specifications	RNA ScreenTape	High Sensitivity RNA ScreenTape
Analysis type	Eukaryotic or prokaryotic total RNA QC	Eukaryotic or prokaryotic total RNA QC
Sensitivity[1]	5 ng/µL	100 pg/µL
Quantitative precision	10% CV	15% CV
Quantitative accuracy	±20%	±30%
Quantitative range	25 to 500 ng/µL	500 to 10,000 pg/µL
Quality score[2]	RIN^e	RIN^e
RIN^e functional range	25 to 500 ng/µL	1,000 to 25,000 pg/µL
Maximum buffer concentration in sample	200 mM Tris 20 mM EDTA or 50 mM NaCl	10 mM Tris 1 mM EDTA
Physical Specifications		
Analysis time	16 samples < 20 min 96 samples < 95 min	16 samples < 35 min 96 samples < 180 min
Samples per consumable	16	16
Sample volume required	1 µL	2 µL
Kit stability	6 months	6 months
Kit size	112 samples	112 samples

[1] *Signal-to-noise >3 (single peak)*
[2] *RIN^e – RNA integrity number equivalent*

RNA application notes

Publication Number	Description
5994-0946EN	Monitoring Library Preparation for Next-Generation Sequencing in Systems Biology Omics Analysis
5994-7327EN	RNA Quality Assessment with the Agilent Automated Electrophoresis Systems
5994-7314EN	FFPE RNA Quality Assessment with the Agilent Bioanalyzer and TapeStation Systems
5994-4882EN	Quality Control in IVT RNA Workflow using Agilent TapeStation Systems
5994-1038EN	Performance Characteristics of the RNA and High Sensitivity RNA ScreenTape Assay for the 4150 TapeStation System

This list only provides an overview of selected RNA application notes.
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Agilent 2100 Bioanalyzer System

The Agilent 2100 Bioanalyzer system is an automated electrophoresis solution for the sample quality control of biomolecules. Sale of the Bioanalyzer instrument was discontinued on 31 December 2023. Bioanalyzer kits and reagents, as well as support and services for instruments, consumables, and software, will continue to be available.

The next generation of Agilent automated electrophoresis instrumentation, including the TapeStation, Fragment Analyzer, and ProteoAnalyzer systems, deliver additional features and compelling benefits.

Don't miss our workflow videos and learn how to operate the next generation of Agilent automated electrophoresis instrumentation.

Agilent TapeStation systems

The TapeStation systems are all-in-one platforms that provide rapid, end-to-end, and automated DNA and RNA sample QC. No matter your starting sample type, the TapeStation system can analyze them with accurate and precise ScreenTape devices for low-, medium-, and high-throughput labs.

TapeStation systems workflow

Agilent Fragment Analyzer systems

The Fragment Analyzer systems help eliminate library prep bottlenecks by allowing automated sample QC of DNA and RNA samples. A broad kit portfolio is available to analyze different sample types (including genomic DNA, small and total RNA, HMW DNA, and cfDNA).

Fragment Analyzer systems workflow

Agilent ProteoAnalyzer system

The ProteoAnalyzer system is an instrument designed for the assessment of both reduced and non-reduced protein samples. Streamlined sample preparation and intuitive software simplifies protein analysis workflows, making it easier for you to analyze the size and purity of your protein of interest.

ProteoAnalyzer systems workflow

Agilent 2100 Bioanalyzer System

The Agilent 2100 Bioanalyzer system is a versatile system for sizing, quantification, and quality control of biomolecules.

Agilent 2100 Expert software

Part Number	Description	Quantity
G2946CA	2100 Expert software upgrade Package for upgrade to the latest revision of 2100 Expert software. Includes the required license keys to run the instrument.	1 upgrade

Accessories and spare parts

Part Number	Description	Quantity
5065-4413	Electrode cartridge Removable cartridge with detachable 16-pin electrode assembly for easy cleaning. For RNA, DNA, and protein assays.	1 cartridge
5065-9951	Electrode cleaner kit Includes additional electrode cleaners for the maintenance of the electrode cartridge.	7 electrode cleaners
G2938-68300	Test chip kit For running instrument diagnostics and troubleshooting electrophoretic assays. Includes autofocus chip, electrode/diode test chip, and documentation.	1 kit
5065-4401	Chip priming station Used to load gel matrix into a chip with a syringe provided in each assay kit – used for RNA, DNA, and protein assays. Includes priming station, timer, and 1 syringe clip.	1 kit
5042-1398	Adjustable clip for priming station Used in combination with a syringe to apply defined pressure for chip priming.	1 clip
G2938-68716	Gasket Kit for chip priming station Includes 1 syringe adapter, 10 gaskets, and 1 mounting ring.	1 kit
5185-5990	Filters for gel matrix Extra spin filters for the gel matrix in RNA, DNA, and protein assays.	25 filters
2110-0007	Fuse for 2100 Bioanalyzer power supply 1 A / 250 V.	1 fuse
RS232-61601	RS-232 cable Connector cable between desktop or laptop PC and Agilent 2100 Bioanalyzer instrument.	1 cable
5188-8031	USB Serial adapter cable Connects RS-232 cables to USB PC ports (for PCs without serial ports).	1 cable

Services

For more details on our service portfolio, please contact your sales representative or Agilent's Worldwide Sales and Support Phone Assistance

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Bioanalyzer DNA Kits and Reagents

The Agilent DNA kits, together with the Agilent 2100 Bioanalyzer system, are ideal for automated sizing and quantification of PCR fragments, restriction digests, or fragmented DNA.

DNA kits and reagents

Part Number	Description	Quantity
5067-4626	High Sensitivity DNA kit For the separation, sizing, and quantification of dsDNA samples of limited abundance ranging from 50 to 7,000 bp. Includes 10 chips, reagents, ladder, and consumables.	For 110 samples
5067-4627	High Sensitivity DNA reagents Includes reagents and ladder; no chips.	For 10 chips
5067-1504	DNA 1000 kit For sizing and quantification of dsDNA fragments ranging from 25 to 1,000 bp. Includes 25 chips, reagents, ladder, and consumables.	For 300 samples
5067-1505	DNA 1000 reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1506	DNA 7500 kit For sizing and quantification of dsDNA fragments ranging from 100 to 7,500 bp. Includes 25 chips, reagents, ladder, and consumables.	For 300 samples
5067-1507	DNA 7500 reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1508	DNA 12000 kit For sizing and quantification of dsDNA fragments ranging from 100 to 12,000 bp. Includes 25 chips, reagents, ladder, and consumables.	For 300 samples
5067-1509	DNA 12000 reagents Includes reagents and ladder; no chips.	For 25 chips

Bioanalyzer DNA Kits and Reagents

DNA specifications

Analytical Specifications	High Sensitivity DNA	DNA 1000	DNA 7500	DNA 12000
Sizing range	50 to 7,000 bp	25 to 1,000 bp	100 to 7,500 bp	100 to 12,000 bp
Typical resolution	50 to 600 bp: 10% 600 to 7,000 bp: 20%	25 to 100 bp: 5 bp 100 to 500 bp: 5% 500 to 1,000 bp: 10%	100 to 1,000 bp: 5% 1,000 to 7,500 bp: 15%	100 to 1,000 bp: 5% 1,000 to 12,000 bp: 15%
Sizing precision[1]	5% CV	5% CV	5% CV	5% CV
Sizing accuracy[1]	±10%	±10%	±10%	±15%
Quantitative precision[1]	50 to 2,000 bp: 15% CV 2,000 to 7,000 bp: 10% CV	25 to 500 bp: 15% CV 500 to 1,000 bp: 5% CV	100 to 1,000 bp: 10% CV 1,000 to 75,00 bp: 5% CV	100 to 1,000 bp: 15% CV 1,000 to 12,000 bp: 10% CV
Quantitative accuracy[1]	±20%	±20%	±20%	±25%
Quantitative range[1]	5 to 500 pg/µL	0.5 to 50 ng/µL	0.5 to 50 ng/µL	0.5 to 50 ng/µL
Maximum buffer concentration in sample	10 mM Tris and 1 mM EDTA	250 mM for KCl 250 mM for NaCl 15 mM for $MgCl_2$	250 mM for KCl 250 mM for NaCl 15 mM for $MgCl_2$	250 mM for KCl 250 mM for NaCl 15 mM for $MgCl_2$
Physical Specifications				
Analysis time	45 minutes	35 minutes	30 minutes	30 minutes
Samples per chip	11	12	12	12
Sample volume required	1 µL	1 µL	1 µL	1 µL
Kit stability	4 months	4 months	4 months	4 months
Kit size	110 samples	300 samples	300 samples	300 samples

[1]*Determined using ladder as sample*

Learn more about the Agilent TapeStation and Fragment Analyzer systems, Agilents next generation of automated electrophoresis solutions for DNA quality control.

DNA application notes

Publication Number	Description
5994-0946EN	Monitoring Library Preparation for Next Generation Sequencing in System Biology Omics Analysis
5991-8191EN	Quality Control for Agilent SureSelectQXT WGS Library Preparation
5994-4575EN	Quality Assessment of NGS Libraries using the Agilent Automated Electrophoresis Systems
5991-9093EN	Comparison of DNA QC Assays Using the 4200 TapeStation System and 2100 Bioanalyzer Systems
5994-2459EN	Comparison of DNA QC for NGS Workflows with the Agilent Fragment Analyzer and Bioanalyzer Systems
5994-5024EN	Comparison of Small DNA Fragment Analysis using the Agilent Bioanalyzer and Agilent Fragment Analyzer Systems

This list only provides an overview of selected DNA application notes. Visit our website at **www.agilent.com/genomics/bioanalyzer** for a complete list of all available application and technical notes.

Bioanalyzer RNA Kits and Reagents

The Agilent RNA kits and RNA integrity number (RIN) provide reliable RNA quality assessment. Perform fast, easy, and precise integrity checks and sample quantification before any RNA-dependent application.

RNA kits and reagents

Part Number	Description	Quantity
5067-1511	RNA 6000 Nano kit For analysis and quantification of total RNA and mRNA samples of 25 to 500 ng/µL in concentration. Includes 25 chips, reagents, ladder, and consumables.	For 300 samples
5067-1512	RNA 6000 Nano reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1529	RNA 6000 Nano ladder Includes ladder only.	For 25 chips
5067-1513	RNA 6000 Pico kit For the analysis of RNA samples of low abundance down to 50 pg/µL of total RNA or 250 pg/µL of mRNA. Includes 25 chips, reagents, ladder, and consumables.	For 275 samples
5067-1514	RNA 6000 Pico reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1535	RNA 6000 Pico ladder Includes ladder only.	For 25 chips
5067-1548	Small RNA kit For the analysis and quantification of small RNA samples ranging from 6 to 150 nt in size and 50 to 2,000 pg/µL in concentration. Includes 25 chips, reagents, ladder, and consumables.	For 275 samples
5067-1549	Small RNA reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1550	Small RNA ladder Includes ladder only.	For 25 chips

Bioanalyzer RNA Kits and Reagents

RNA specifications

Analytical Specifications	RNA 6000 Nano Total RNA	RNA 6000 Nano mRNA	RNA 6000 Pico Total RNA	RNA 6000 Pico mRNA	Small RNA
Sizing range	-	-	-	-	6 to 150 nt
Sensitivity[1]	5 ng/µL in water	25 ng/µL in water	50 pg/µL in water 200 pg/µL in TE	250 pg/µL in water 500 pg/µL in TE	50 pg/µL in water[3]
Quantitative precision	10% CV	10% CV	20% CV	20% CV	25% CV
Quantitative accuracy[2]	±20%	±20%	±30%	±30%	-
Quantitative range	25 to 500 ng/µL	25 to 250 ng/µL	-	-	50 to 2,000 pg/µLof purified miRNA in water
Qualitative range	5 to 500 ng/µL	25 to 250 ng/µL	50 to 5,000 pg/µL in water	250 to 5,000 pg/µL in water	50 to 2,000 pg/µL of purified miRNA in water
Maximum buffer concentration in sample	100 mM Tris 0.1 mM EDTA or 125 mM NaCl or 15 mM MgCl2	100 mM Tris 0.1 mM EDTA or 125 mM NaCl or 15 mM MgCl2	50 mM Tris 0.1 mM EDTA or 50 mM NaCl or 15 mM MgCl2	50 mM Tris 0.1 mM EDTA or 50 mM NaCl or 15 mM MgCl2	10 mM Tris 0.1 mM EDTA
Physical Specifications					
Analysis time	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes
Samples per chip	12	12	11	11	11
Sample volume required	1 µL	1 µL	1 µL	1 µL	1 µL
Kit stability	4 months	4 months	4 months	4 months	4 months
Kit size	300 samples	300 samples	275 samples	275 samples	275 samples

[1]*Signal-to-noise >3 (single peak)*
[2]*Determined using ladder as sample*
[3]*Measured for the 40 nt fragment of the Small RNA ladder*

Learn more about the Agilent TapeStation and Fragment Analyzer systems, Agilents next generation of automated electrophoresis solutions for RNA quality control.

RNA applications notes

Publication Number	Description
5994-7327EN	RNA Quality Assessment with the Agilent Automated Electrophoresis Systems
5994-1860EN	Comparison of RIN and RQN for the Agilent 2100 Bioanalyzer and the Fragment Analyzer Systems
5994-7314EN	FFPE RNA Quality Assessment with the Agilent Bioanalyzer and TapeStation Systems
5994-5648EN	Comparison of the Agilent 2100 Bioanalyzer and the Agilent Fragment Analyzer Systems for Analysis of Plant, Insect, and Bacterial RNA
5994-4860EN	Comparison of Small RNA Analysis using the Agilent Bioanalyzer and Agilent Fragment Analyzer Systems

This list only provides an overview of selected RNA application notes. Visit our website at **www.agilent.com/genomics/bioanalyzer** for a complete list of all available application and technical notes.

Bioanalyzer Protein Kits and Reagents

The Agilent Protein kit portfolio provides a fast and flexible way for the assessment of protein concentration, identity, and purity in various samples.

Protein kits and reagents

Part Number	Description	Quantity
5067-1515	Protein 80 kit For sizing and quantification of protein samples from 5 to 80 kDa. Includes 25 chips, reagents, ladder, and consumables.	For 250 samples
5067-1516	Protein 80 reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1517	Protein 230 kit For sizing and quantification of protein samples from 14 to 230 kDa. Includes 25 chips, reagents, ladder, and consumables.	For 250 samples
5067-1518	Protein 230 reagents Includes reagents and ladder; no chips.	For 25 chips
5067-1575	High Sensitivity Protein 250 kit For sizing and highly sensitive quantification of protein samples from 10 to 250 kDa. Includes 10 chips, analysis and labeling reagents, and consumables.	For 100 samples
5067-1576	High Sensitivity Protein 250 reagents Includes reagents for Bioanalyzer analysis; no chips.	For 10 chips
5067-1577	High Sensitivity Protein 250 labeling kit Includes reagents for labeling reaction.	For 100 samples
5067-1578	High Sensitivity Protein 250 ladder Includes ladder only.	For 10 chips

Bioanalyzer Protein Kits and Reagents

Protein specifications

Analytical Specifications	Protein 80	Protein 230	High Sensitivity Protein 250
Sizing range	5 to 80 kDa	14 to 230 kDa	10 to 250 kDa
Typical resolution	10%	10%	10%
Sensitivity[1]	6 ng/µL CAII in PBS 15 ng/µL BSA in PBS 10 ng/µL CAII in 0.5 M NaCl 30 ng/µL BSA in 0.5 M NaCl	6 ng/µL CAII in PBS 15 ng/µL BSA in PBS 30 ng/µL BSA in 0.5 M NaCl	1 pg/µL labeled BSA in water on chip 5 pg/µL labeled BSA in PBS on chip (Labeling reaction at 1 ng/µL of total protein)
Sizing precision	3% CV (CAII, BLG)	3% CV (BSA, CAII)	3% CV (BSA)
Sizing accuracy	±10% (CAII, BLG)	±10% (BSA, CAII)	±10% (BSA)
Quantitative precision	20% CV (CAII, BLG)	20% CV (BSA, CAII)	20% CV (BSA)
Quantitative range	60 to 2,000 ng/µL CAII in PBS	15 to 2,000 ng/µL CAII in PBS 30 to 2,000 ng/µL BSA in PBS	typically up to 4 orders of magnitude (0.1 to 1,000 ng/µL BSA)
Qualitative range	6 to 4,000 ng/µL CAII and BLG in PBS	6 to 5,000 ng/µL CAII in PBS 15 to 5,000 ng/µL BSA in PBS	-
Physical Specifications			
Analysis time	30 minutes	25 minutes	30 minutes
Samples per chip	10	10	10
Sample volume required	4 µL	4 µL	5 µL
Kit stability	4 months	4 months	6 months
Kit size	250 samples	250 samples	100 samples

CAII = carbonic anhydrase, BSA = bovine serum albumin, BLG = beta-lactoglobulin
[1]*Signal-to-noise >3 (single peak)*

Read more about the new Agilent ProteoAnalyzer system and explore the resources:
explore.agilent.com/protein-analysis-parallel-to-none-4

Application notes

Publication Number	Description
5994-6965EN	Analysis of Protein Size and Concentration using the Agilent ProteoAnalyzer and Agilent 2100 Bioanalyzer Systems

This list only provides an overview of selected protein application notes. Visit our website at **www.agilent.com/genomics/bioanalyzer** for a complete list of all available application and technical notes.

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