



Agilent 2100 Bioanalyzer and Agilent 2200 TapeStation Systems
Agilent 3100 OFFGEL Fractionator

SYSTEMS, CONSUMABLES AND SUPPLIES

The Measure of Confidence



Agilent Technologies

Agilent 2100 Bioanalyzer System

One platform – Endless possibilities

The Agilent 2100 Bioanalyzer system offers fast and reliable separation, sizing and quantification of DNA, RNA and proteins by miniaturized on-chip electrophoresis surpassing labor intensive slab gels by speed, reproducibility and independence from user influences.

A unique feature of the Agilent 2100 Bioanalyzer system allows the instrument to easily switch from electrophoresis to two-color flow cytometry analysis of fluorescently-labeled cells. This versatility makes the Agilent 2100 Bioanalyzer system an indispensable tool for the molecular biologist and biochemist.

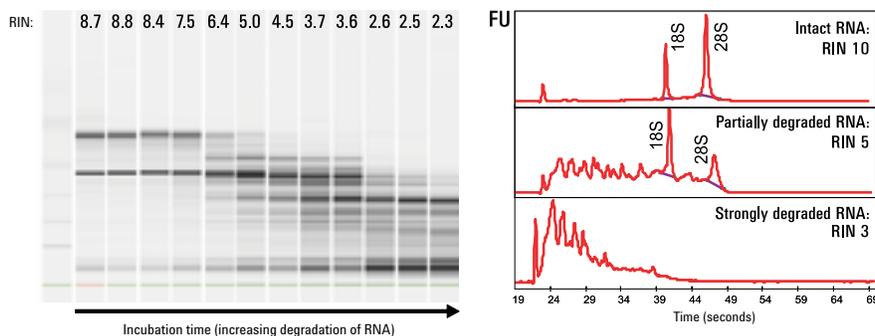


Key benefits

- Industry standard for DNA quality control in next generation sequencing workflows.
- RNA Integrity Number (RIN) is the gold standard for RNA integrity measurements.
- Highest sensitivity with detection in the picogram range for DNA, RNA, and protein analysis.
- Highest assay accuracy and precision.
- Minimal sample consumption (1 μ L for nucleic acids and 4 μ L for diluted proteins) with results in as little as 25 minutes.
- Replaceable electrode cartridge can be easily exchanged for contamination-free switch of methods.
- Digital data with various data display options – gel view, electropherograms, and tables – allows convenient analysis, archiving, and simple comparison of samples from multiple chips.
- Multiple exportable data formats (xml, csv, html, pdf, wmf, jpg, tif, bmp, and aia).
- Minimum exposure to hazardous materials.
- Supports 21 CFR Part 11 compliance.

Ensuring high quality RNA for downstream applications

The Agilent 2100 Bioanalyzer system is the gold standard for integrity measurements on RNA. In less than 30 minutes, small RNA or total RNA is checked for quantity and degradation. The unique RIN offers a measure for normalized RNA quality to assure reproducible results from downstream experiments, such as next generation sequencing, microarrays or qPCR.





The Agilent 2100 Bioanalyzer system is a versatile system for sizing, quantification and quality control of DNA, RNA, proteins and cells on a single platform.

Agilent 2100 Bioanalyzer Systems

Part Number	Description	Quantity
G2940CA	2100 Bioanalyzer Desktop Bundle Includes the Bioanalyzer instrument, desktop PC with 2100 Expert software preinstalled, instrument license, printer, chip priming station, chip vortexer, and accessories. <i>NOTE: Does not include cartridge. Requires Electrophoresis Set (G2947CA) or Flow Cytometry Set (G2948CA) for operation.</i>	1 system
G2943CA	2100 Bioanalyzer Laptop Bundle Includes the Bioanalyzer instrument, laptop PC with 2100 Expert software preinstalled, instrument license, and printer, chip priming station, chip vortexer, and accessories. <i>NOTE: Does not include cartridge. Requires Electrophoresis Set (G2947CA) or Flow Cytometry Set (G2948CA) for operation.</i>	1 system
G2939AA	2100 Electrophoresis Bioanalyzer Instrument For electrophoretic assays only. Includes the electrophoresis-only Bioanalyzer instrument, electrode cartridge, 2100 Expert software and licenses, chip priming station, chip vortexer, test chips, accessories, and installation and familiarization services. <i>NOTE: Does not include PC.</i>	1 system
G2947CA	Electrophoresis Set Includes the electrode cartridge, electrophoresis license, test chips, and installation and familiarization services.	1 set
G2948CA	Flow Cytometry Set Includes the pressure cartridge, flow cytometry license, cell check-out kit, test chip, and installation and familiarization services.	1 set
G2938C	2100 Bioanalyzer Add-on Instrument The Bioanalyzer instrument only. Ideal for experienced users requiring the addition of a second instrument to their system. Two Bioanalyzer instruments may be operated from one PC (connected via one serial and one USB port).	1 instrument

Software

Part Number	Product	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
G2949CA	2100 Expert Security Pack License For CFR 21 Part 11 compliance. Includes compliance software upgrade and licenses.	1 license
-	2100 Expert Data Review Software Software for analysis of data generated by the 2100 Bioanalyzer system. No purchase or licenses required. Download free of charge from: www.agilent.com/genomics/bioanalyzer	

Accessories and Spare Parts

Part Number	Description	Quantity
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
G2938-68200	Cell Test Chip Kit For running instrument diagnostics and troubleshooting cell assays. Includes cell autofocus chip and documentation.	1 kit
5065-4478	Pressure Adapter Kit For use with pressure cartridge. Includes 1 mounting ring and 5 pressure adapters with gasket.	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.	1 cable
5188-8031	USB Serial Adapter Cable Connects RS-232 cables to USB PC ports (for PCs without serial ports).	1 cable
5065-9966	Vortex Mixer Adapter Designed to hold chip firmly in place while vortexing. Replacement part for IKA MS-2 vortexer (3 mounting screws).*	1 adapter
5065-4413	Electrode Cartridge Removable cartridge with detachable 16-pin electrode assembly for easy cleaning. For RNA, DNA, and protein assays.	1 cartridge
5065-4492	Pressure Cartridge Removable cartridge with pressure adapter for cell assays. For use with the Agilent 2100 Bioanalyzer (G2938B or G2938C) equipped with the cell assay extension (G2938CA).	1 cartridge

*Replacement chip adapters for the MS 3 vortexer are available through IKA (part number: 3428300) only.

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/genomics/contactus



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 very low abundance and range from 50 to 7000 bp. Includes 10 chips, reagents, ladder and consumables. <i>NOTE: Only compatible with G2938B, G2938C and G2939A Bioanalyzer instruments.</i>	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 from 25 to 1000 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 from 100 to 7500 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 from 100 to 12000 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

DNA Specifications

Analytical Specifications	High Sensitivity DNA	DNA 1000	DNA 7500	DNA 12000
Sizing range	50–7000 bp	25–1000 bp	100–7500 bp	100–12000 bp
Sizing resolution	50–600 bp: ±10 % 600–7000 bp: ±20 %	25–100 bp: 5 bp 100–500 bp: 5 % 500–1000 bp: 10 %	100–1000 bp: 5 % 1000–7500 bp: 15 %	100–1000 bp: 5 % 1000–12000 bp: 15 %
Sizing accuracy	±10 % CV*	±10 % CV*	±10 % CV*	±15 % CV*
Sizing reproducibility	5 % CV*	5 % CV*	5 % CV*	5 % CV*
Quantification accuracy	20 % CV*	20 % CV*	20 % CV*	25 % CV*
Quantification reproducibility	50–2000 bp: 15% CV* 2000–7000 bp: 10% CV*	25–500 bp: 15 % CV* 500–1000 bp: 5 % CV*	100–1000 bp: 10 % CV* 1000–7500 bp: 5 % CV*	100–1000 bp: 15 % CV* 1000–12000 bp: 10 % CV*
Quantitative range	5–500 pg/μL*	0.5–50 ng/μL*	0.5–50 ng/μL*	0.5–50 ng/μL*
Maximum sample buffer strength	10 mM Tris 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	1 μL	1 μL	1 μL	1 μL
Kit stability	Minimum 4 months (see box for storage temp.)	Minimum 4 months (see box for storage temp.)	Minimum 4 months (see box for storage temp.)	Minimum 4 months (see box for storage temp.)
Kit size	DNA 11/chip = 110 samples/kit	DNA 12/chip = 300 samples/kit	DNA 12/chip = 300 samples/kit	DNA 12/chip = 300 samples/kit

* Determined by analyzing the DNA ladder as sample

DNA Application Notes

Publication Number	Description
5989-3514EN	Measuring the METH-2 promoter hypermethylation and transcript downregulation in non-small cell lung carcinomas with the Agilent 2100 Bioanalyzer
5989-6836EN	Use of the Agilent 2100 Bioanalyzer for basmati rice authenticity testing
5990-3948EN	Complete automation of the Stratagene Strata Prep 96 PCR Purification kit with the Agilent Bravo Automated Liquid Handling platform and Agilent Automated Centrifuge
5990-4942EN	Automation of Agencourt AM Pure Purification kit for the purification of Next-Generation Sequencing sample preparation reactions on Bravo
5990-5008EN	Improving sample quality for target enrichment and next-gen sequencing with the Agilent High Sensitivity DNA kit and the Agilent SureSelect Target Enrichment platform
5990-8382EN	Low input DNA size selection on the Pippin Prep System using the Agilent 2100 Bioanalyzer with the Agilent High Sensitivity DNA kit
5991-0483EN	DNA quality control of formalin-fixed paraffin-embedded and fresh-frozen tissues prior to target-enrichment and next generation sequencing

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. Or, see the Agilent 2100 Bioanalyzer – Application Compendium (Publication Number 5990-6987EN).



The Agilent RNA kits and RNA Integrity Number (RIN) are the industry standard for 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 2000 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

RNA Specifications

Analytical Specifications	RNA 6000 Nano Total RNA	RNA 6000 Nano mRNA	RNA 6000 Pico Total RNA	RNA 6000 Pico mRNA	Small RNA
Quantitative range	25–500 ng/μL	25–250 ng/μL	-	-	50–2000 pg/μL of purified miRNA in water
Qualitative range	5–500 ng/μL	25–250 ng/μL	50–5000 pg/μL in water	250–5000 pg/μL in water	50–2000 pg/μL of purified miRNA in water
Sizing range	-	-	-	-	6-150 nt
Sensitivity (signal/noise > 3)	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**
Quantification reproducibility (within a chip)	10 % CV	10 % CV	20 % CV	20 % CV	25 % CV
Quantification accuracy*	20 %	20 %	30 %	30 %	-
Maximum sample buffer strength	100 mM Tris 0.1 mM EDTA or 125 mM NaCl or 15 mM MgCl ₂	100 mM Tris 0.1 mM EDTA or 125 mM NaCl or 15 mM MgCl ₂	50 mM Tris 0.1 mM EDTA or 50 mM NaCl or 15 mM MgCl ₂	50 mM Tris 0.1 mM EDTA or 50 mM NaCl or 15 mM MgCl ₂	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	1 μL	1 μL	1 μL	1 μL	1 μL
Kit stability	Minimum 4 months at 4 °C	Minimum 4 months at 4 °C	Minimum 4 months at 4 °C	Minimum 4 months at 4 °C	Minimum 4 months at 4 °C
Kit size	RNA Nano 12/chip = 300 samples/kit	RNA Nano 12/chip = 300 samples/kit	RNA Pico 11/chip = 275 samples/kit	RNA Pico 11/chip = 275 samples/kit	Small RNA 11/chip = 275 samples/kit

* Determined analyzing the RNA ladder as sample

** Measured for the 40 nt fragment of the Small RNA ladder

RNA Application Notes

Publication Number	Description
5989-1165EN	RNA Integrity Number (RIN) – Standardization of RNA quality control
5989-7730EN	Optimizing real-time quantitative PCR experiments with the Agilent 2100 Bioanalyzer
5989-7870EN	Analysis of miRNA content in total RNA preparations using the Agilent 2100 Bioanalyzer
5989-8539EN	Analysis of small RNAs from Drosophila Schneider cells using the Small RNA assay on the Agilent 2100 Bioanalyzer
5990-3558EN	Automation of Stratagene Absolutely RNA 96 Microprep kit with the Bravo Automated Liquid Handling platform
5990-3917EN	Gene expression microarray analysis of archival FFPE samples
5990-5557EN	RNA quality control in miRNA expression analysis
5990-8850EN	Assessing integrity of plant RNA with the Agilent 2100 Bioanalyzer

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. Or, see the Agilent 2100 Bioanalyzer – Application Compendium (Publication Number 5990-6987EN).

The Agilent Protein kit portfolio provides a fast and flexible way for the assessment of protein concentration, identity, and purity in a wide variety of 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. <i>NOTE: Only supported for G2938B, G2938C and G2939A Bioanalyzer instruments.</i>	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.	For 10 chips

Protein Specifications

Analytical specifications	Protein 80	Protein 230	High Sensitivity Protein 250
Sizing range	5–80 kDa	14–230 kDa	10–250 kDa
Typical sizing resolution	10 %	10 %	10 %
Typical sizing accuracy	10 % CV (CAII, BLG)	10 % CV (BSA, CAII)	10 % CV (BSA)
Sizing reproducibility	3 % CV (CAII, BLG)	3 % CV (BSA, CAII)	3 % CV (BSA)
Sensitivity (signal/noise > 3)	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)
Quantitative range	60–2000 ng/μL CAII in PBS	15–2000 ng/μL CAII in PBS 30–2000 ng/μL BSA in PBS	0.3–3000 ng/μL BSA
Qualitative range	6–4000 ng/μL CAII and BLG	6–5000 ng/μL CAII in PBS 15–5000 ng/μL BSA in PBS	-
Quantification reproducibility	20 % CV (CAII, BLG)	20 % CV (BSA, CAII)	20 % CV (BSA)
Physical specifications			
Analysis time	30 minutes	25 minutes	30 minutes
Samples per chip	10	10	10
Sample volume	4 μL	4 μL	5 μL
Kit stability	Minimum 4 months (see box for storage temp.)	Minimum 4 months (see box for storage temp.)	Minimum 6 months at -20 °C
Kit size	Protein 10/chip = 250 samples/kit	Protein 10/chip = 250 samples/kit	Protein 10/chip = 100 samples/kit

CAII = carbonic anhydrase, BSA = bovine serum albumin, BLG = beta-lactoglobulin

Protein Application Notes

Publication Number	Description
5989-7735EN	Rapid wheat varietal identification using the Agilent 2100 Bioanalyzer and automated pattern-matching
5989-8419EN	Alternative to 2D gel electrophoresis – OFFGEL electrophoresis combined with high-sensitivity on-chip protein detection
5990-4097EN	Immunoprecipitation and the High Sensitivity Protein 250 assay
5990-8125EN	Milk protein analysis with the Agilent 2100 Bioanalyzer and the Agilent Protein 80 kit
5990-9593EN	Analysis of PEGylated proteins using the Agilent 2100 Bioanalyzer

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. Or, see the Agilent 2100 Bioanalyzer – Application Compendium (Publication Number 5990-6987EN).



The Agilent Cell Fluorescence kits are ideally suited for easy, fast, and automated two-color flow cytometry analyses of fluorescently labeled cells.

Cell Kits

Part Number	Description	Quantity
5067-1519	Cell Kit For analysis of fluorescently stained cells. Includes 25 chips, reagents and consumables.	For 150 samples
5067-1520	Cell Checkout Kit For testing proper flow cytometry operation. Includes 7 cell chips and reagents.	For 7 chips

Cell Specifications

Analytical Specifications	Cell
Red channel	Excitation range 620–645 nm (maximum 630 nm) Emission range 674–696 nm (maximum 680 nm)
Blue channel	Excitation range 458–482 nm (maximum 470 nm) Emission range 510–540 nm (maximum 525 nm)
Detection limit	5,000 MESF (red channel) 2,000,000 MESF (blue channel)
Minimum cell throughput	2.5 cells / second
Recommended cell density	2.0 x 10 ⁶ / mL (expected counts = 500–1,000 cells)
Physical Specifications	
Analysis time	30 minutes
Samples per chip	6
Sample volume	10 µL (recommended number of cells 2 x 10 ⁴)
Kit stability	Minimum 4 months at 4 °C
Kit size	Cell 6/chip = 150 samples/kit

Cell Application Notes

Publication Number	Description
5988-4319EN	Apoptosis detection by annexin V and active caspase-3 with the Agilent 2100 Bioanalyzer
5988-4320EN	Monitoring transfection efficiency by green fluorescence protein (GFP) detection
5988-4322EN	Detection of antibody-stained intracellular protein targets with the Agilent 2100 Bioanalyzer
5989-2718EN	Cytometric analysis of upregulated functional gene expression in primary cells by on-chip staining
5989-2934EN	Detection of apoptosis in primary cells by annexin V binding using the Agilent 2100 Bioanalyzer
5989-7171EN	Identification of red and white blood cells from whole blood samples using the Agilent 2100 Bioanalyzer

This list only provides an overview of selected cell application notes. Visit our website at www.agilent.com/genomics/bioanalyzer for a complete list of all available application and technical notes. Or, see the Agilent 2100 Bioanalyzer – Application Compendium (Publication Number 5990-6987EN).

Agilent 2200 TapeStation System

Accelerate sample QC with confidence

The Agilent 2200 TapeStation system offers fast and reliable RNA, DNA and protein electrophoresis with scalable throughput, making it an ideal solution for quality control of biological samples in next-generation sequencing (NGS), microarray, qPCR and aCGH workflows, as well as in protein purification and antibody production.

Sample analysis has never been so easy – simply load the 2200 TapeStation instrument with the credit card-sized, disposable ScreenTape, filtered loading tips, and your samples in 16 tube strips or 96-well plates – and you will be reviewing results in as little as one minute per sample.

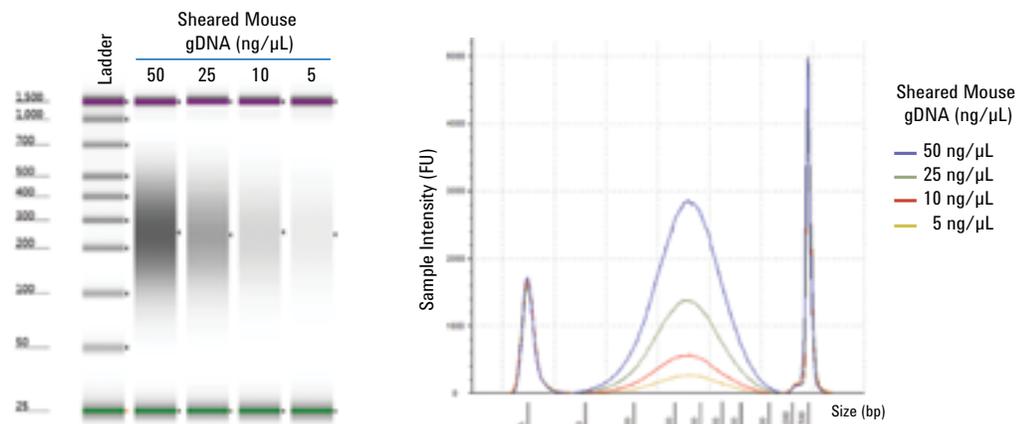
Key benefits

- Up to 96 samples are analyzed with constant costs per sample providing scalable throughput.
- Results are obtained in as little as one minute per sample, even for 96 samples.
- Simplify your workflow with ready-to-use ScreenTape consumables and automation.
- Achieve user-independent results with minimal manual intervention and excellent reproducibility.
- Requires not more than 2 μL of DNA, RNA or proteins samples, even for high sensitivity analysis.
- Switch with ease between DNA, RNA and protein ScreenTape for greatest flexibility.
- Rely on the market-leading RNA quality standard (RIN) by using the Agilent-developed RIN^e.
- Carryover is eliminated with individual loading tips for each sample and the ScreenTape analyses each sample in a separate lane.



DNA analysis during the NGS workflow

The 2200 TapeStation system can be used at several quality control steps of the NGS workflow: genomic DNA QC, shearing of genomic DNA, library amplification, and post-capture amplified library after SureSelect targeted enrichment. The figure shows post-sheared genomic DNA analyzed with D1000 ScreenTape.





The compact Agilent 2200 TapeStation system automates RNA, DNA and protein sample QC, including sample loading, separation, and imaging, with scalable throughput.

Agilent 2200 TapeStation Systems

Part Number	Description	Quantity
G2964AA	2200 TapeStation System For RNA, DNA and protein analysis. Includes the 2200 TapeStation instrument, laptop with 2200 TapeStation software, vortexer, accessories, consumables and user information.	1 system
G2965AA	2200 TapeStation Nucleic Acid System For RNA and DNA analysis only. Includes the 2200 TapeStation Nucleic Acid instrument, laptop with 2200 TapeStation software, vortexer, accessories, consumables and user information.	1 system

Accessories and Spare Parts

Part Number	Description	Quantity
5067-5155	Sample block (for tube strips)	1 block
5067-5156	Sample block (for 96 well plate)	1 block
5067-5158	Loading tip holder	1 holder
5067-5150	96-well sample plates	10 plates
5067-5154	96-well plate foil seal	100 foils
5067-5152	Loading tips, 10 Pk	10 packs of 384 tips each
5067-5153	Loading tips, 1 Pk	1 pack of 384 tips
401428	Optical tube strips, 8x strip	1 box of 120
401425	Optical caps, 8x strip	1 box of 120

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/genomics/contactus

DNA Consumables and Reagents

Part Number	Description	Quantity
5067-5582	D1000 ScreenTape For the analysis of DNA from 35 to 1,000 bp. Includes 7 ScreenTape consumables.	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 additional ladder.	
5067-5584	High Sensitivity D1000 ScreenTape For the high sensitivity analysis of DNA from 35 to 1,000 bp. Includes 7 ScreenTape consumables.	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 analysis of DNA from 35 to 1,000 bp. Includes 20 µL additional ladder.	
5067-5365	Genomic DNA ScreenTape For the analysis of genomic DNA from 200 to >60,000 bp. Includes 7 ScreenTape consumables..	For 112 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 112 samples



The D1000 ScreenTape provides separation and analysis of DNA fragments, fragmented DNA and NGS libraries from 35 bp to 1000 bp.

DNA Specifications

Analytical Specifications	D1000 ScreenTape	High Sensitivity D1000 ScreenTape	Genomic DNA ScreenTape
Sizing range	35 - 1,000 bp	35 - 1,000 bp	200 bp to > 60,000 bp
Typical resolution	35 - 300 bp: 15 % 300 - 1,000 bp: 10 %	35 - 300 bp: 15 % 300 - 1,000 bp: 10 %	- -
Sensitivity¹	0.1 ng/µL	5 pg/µL	0.5 ng/ µL
Sizing precision	5 % CV	5 % CV	200 - 15,000 bp : 15 % CV ²
Sizing accuracy	± 10 % ³	± 10% ³	200 - 15,000 bp: ± 10 % ²
Quantitative precision	0.1 - 1 ng/µL: 15 % CV 1 - 50 ng/µL: 10 % CV	15 % CV	15 % CV ⁴
Quantitative accuracy	± 20 % ⁵	± 20 % ⁵	± 20 % ⁴
Quantitative range	0.1 - 50 ng/µL	10 - 1,000 pg/µL	10 - 100 ng/µL
Physical specifications			
Analysis time	16 samples < 20 min 96 samples ~ 100 min	16 samples < 20 min 96 samples ~ 100 min	16 samples < 25 min 96 samples < 150 min
Samples per consumable	16	16	16
Sample volume required	1 µL	2 µL	1 µL
Kit stability	4 months	4 months	4 months
Kit size	112 samples	112 samples	112 samples

¹ Signal/noise >3 for a single peak

² Determined using the Genomic DNA Ladder as sample

³ Accuracy for software ladder: ± 20 %

⁴ Average result from various Genomic DNA sample types

⁵ Measured against 2100 Bioanalyzer system

DNA Application Notes

Publication Number	Description
5990-8760EN	D1K ScreenTape simplifies mycobacterium tuberculosis genotyping
5990-9051EN	HLA typing analysis using D1K ScreenTape is fast, efficient and safe
5990-8761EN	D1K ScreenTape allows mycoplasma PCR analysis for cell line screening
5991-1797EN	Analysis of high molecular weight genomic DNA using the Agilent 2200 TapeStation and Genomic DNA ScreenTape

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

RNA Consumables and Reagents

Part Number	Description	Quantity
5067-5576	RNA ScreenTape For analysis of total RNA down to a sensitivity of 5 ng/μL. Includes 7 ScreenTape consumables.	For 112 samples
5067-5577	RNA ScreenTape Sample Buffer For analysis of total RNA down to a sensitivity of 5 ng/μL. Includes 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 consumables..	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 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.	



The RNA ScreenTape provides 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 Specifications

Analytical Specifications	RNA ScreenTape	High Sensitivity RNA ScreenTape
Quality score	RIN ^e	RIN ^e
Sensitivity¹	5 ng/μL	100 pg/μL
Quantitative range	25 - 500 ng/μL	500 - 10,000 pg/μL
Quantitative precision²	5 % CV	10 % CV
Quantitative accuracy	20 %	30 %
Sizing Range	100 to 6,000 nt	100 to 6,000 nt
Analysis type	Eukaryotic or Prokaryotic total RNA QC	Eukaryotic or Prokaryotic total RNA QC
Maximum sample buffer strength	200 mM Tris, 20 mM EDTA, or 50 mM NaCl	10 mM Tris, 1 mM EDTA
Physical Specifications		
Analysis time	16 samples < 16 min 96 samples < 100 min	16 samples < 30 min 96 samples < 180 min
Samples per consumable	16	16
Sample volume required	1 μL	2 μL
Kit stability	4 months	4 months
Kit size	112 samples	112 samples

For total RNA samples.

¹ Signal/noise >3 in water and TE.

² Within a ScreenTape.

RNA Application Notes

Publication Number	Description
5990-9613EN	Comparison of RIN and RIN ^e algorithms for the Agilent 2100 Bioanalyzer and the Agilent 2200 TapeStation system
5991-0023EN	RNA quality control using the Agilent 2200 TapeStation system – Assessment of the RIN ^e quality metric

This list only provides an overview of selected RNA application notes.

Visit our website at www.agilent.com/genomics/tapestation for a complete list of all available application and technical notes.

Protein Consumables and Reagents

Part Number	Description	Quantity
5067-5371	P200 ScreenTape For the analysis of proteins from 10 to 200 kDa. Includes 7 ScreenTape consumables.	112 samples
5067-5372	P200 Reagents For the analysis of proteins from 10 to 200 kDa. Includes ladder, 5X Labeling dye, labeling buffer, reducing and non-reducing sample buffer, pH buffer and markers (pre-stained).	112 samples



The P200 ScreenTape is an automated system for protein QC from 10 to 200 kDa allowing the determination protein size, product purity and the comparison of different protein profiles.

Protein Specifications

Analytical Specifications	P200 ScreenTape
Sizing range	10 to 200 kDa
Sizing resolution¹	15 %
Sizing accuracy	± 10 % (CAII, lysozyme, BLG)
Sizing precision	3 % CV
Sensitivity²	5 ng/μL (lysozyme, BSA) 12.5 ng/μL (IgG)
Quantitative range	100 - 1,000 ng/μL (IgG)
Quantitative precision	15 % CV
Qualitative range	5 - 5,000 ng/μL (BSA, lysozyme) 12.5–5,000 ng/μL (IgG)
Physical Specifications	
Analysis time	16 samples < 15 minutes
Samples per consumable	16
Sample volume required	2 μL
Kit stability	4 months
Kit size	112 samples

¹ For ladder

² Signal:noise ratio > 3

CAII = carbonic anhydrase, BLG = beta-lactoglobulin, BSA = bovine serum albumin

Protein Application Notes

Publication Number	Description
5990-9052EN	Reproducible integrity and purity testing of antibodies with P200 ScreenTape
5990-9053EN	Optimization and control of protein purification procedures with P200 ScreenTape
5990-8762EN	Suppression of antibody reduction artifacts with NEM on P200 ScreenTape
5990-9603EN	Agilent P200 ScreenTape – Understanding protein, and protein sample buffer effects on staining, denaturation and electrophoresis

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

Agilent 3100 OFFGEL Fractionator

Easy integration into any protein analysis workflow

Whether your task is biomarker discovery, protein identification or purification of functional proteins or peptides, the Agilent 3100 OFFGEL Fractionator fits into any protein analysis workflow. Integration of the OFFGEL system is easy and ultimately increases sensitivity of subsequent MS detection.

Key benefits

- pI-based OFFGEL fractionation with liquid-phase recovery for easy transfer to downstream techniques such as LC/MS.
- Reproducible fractionation with resolution as low as 0.1 pH for maximum MS sensitivity.
- Compatibility with up- or downstream techniques such as immunodepletion, LC/MS or gel-based analysis for maximum flexibility.
- pI values obtained act as additional validation parameters of MS hits and can be used to search for peptides with charged posttranslational modifications (PTMs).
- All additives can easily be removed after fractionation to avoid interference with nano-electrospray and MS detection.
- Fractionation of up to 16 samples in parallel on two trays (eight samples each) for highest throughput.
- Broad loading capacity from 50 μ g to 5 mg of sample for analytical applications or maximum enrichment of low abundance proteins.
- OFFGEL mode as well as conventional isoelectric focusing (IEF) based on immobilized pH gradient (IPG) gels.



2D-gel-type analysis of *E. coli* cell lysates

E. coli cell lysates in the absence and presence of β -lactoglobuline were labeled and fractionated with the 3100 OFFGEL Fractionator (12-well setup, pH 3-10) and subsequently analyzed using the 2100 Bioanalyzer system. The combination of both systems enables a 2D-gel-type analyses with high resolution and high sensitivity, suitable for differential gene expression applications.





The Agilent 3100 OFFGEL Fractionator provides excellent pI-based fractionation of proteins and peptides with liquid phase recovery prior to LC/MS analysis. It can dramatically increase the number of proteins ultimately identified.

Agilent 3100 OFFGEL Fractionator System

Part Number	Description	Quantity
G3100AA	3100 OFFGEL Fractionator Includes local controller, default methods, power cable, two electrode sets, two trays, and optional installation and familiarization service.	1 system

Accessories and Spare Parts

Part Number	Description	Quantity
5188-8012	12-well-Frame Set To be used with 13 cm IPG gel strips and respective ampholytes; for the following kits: 5188-6444, 5188-6425, 5188-6427. Includes 12 well frames (12 wells), cover seals, electrode pads, glycerol solution, cover fluid and manual.	12 well frames
5188-8013	24-well-Frame Set To be used with 24 cm IPG gel strips and respective ampholytes; for the following kits: 5188-6444, 5188-6424, 5188-6426. Includes 12 well frames (24 wells), cover seals, electrode pads, glycerol solution, cover fluid and manual.	12 well frames
G3100-60007	Tray Set Includes replacement trays.	4 trays
G3100-60002	Electrode Assembly Includes 1 fixed and 1 movable electrode, and 1 tray.	1 assembly

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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The Agilent 3100 OFFGEL Fractionator performs isoelectric focusing of proteins or peptides in immobilized pH gradient (IPG) gel strips offering high and low resolution in different pH ranges.

OFFGEL Electrophoresis Kits and Reagents

Part Number	Description	Quantity
5188-6444	Starter Kit Fractionation of protein or peptide samples. Includes IPG gel strips, well frames, cover seals, paper pads, cover fluid and reagents for fractionation and in-liquid recovery: three samples pH 3-10, 12 fractions; three samples pH 3-10, 24 fractions; three samples pH 4-7, 12 fractions; three samples pH 4-7, 24 fractions.	For 12 samples
5188-6425	Low Resolution Kit, pH 3-10 Fractionation of protein or peptide samples into 12 fractions in the pH range 3-10. Includes IPG gel strips, well frames, cover seals, paper pads, cover fluid and reagents for fractionation and in-liquid recovery.	For 12 samples
5188-6424	High Resolution Kit, pH 3-10 Fractionation of protein or peptide samples into 24 fractions in the pH range 3-10. Includes IPG gel strips, well frames, cover seals, paper pads, cover fluid and reagents for fractionation and in-liquid recovery.	For 12 samples
5188-6427	Low Resolution Kit, pH 4-7 Fractionation of protein or peptide samples into 12 fractions in the pH range 4-7. Includes IPG gel strips, well frames, cover seals, paper pads, cover fluid and reagents for fractionation and in-liquid recovery.	For 12 samples
5188-6426	High Resolution Kit, pH 4-7 Fractionation of protein or peptide samples into 24 fractions in the pH range 4-7. Includes: IPG gel strips, well frames, cover seals, paper pads, cover fluid and reagents for fractionation and in-liquid recovery.	For 12 samples
5188-6428	OFFGEL Protein Test Sample Checkout sample for testing the performance of the 3100 OFFGEL Fractionator. Includes a single protein which will focus into only one fraction when used with the low resolution kit, pH 3-10.	1 test sample

OFFGEL Electrophoresis Application Notes

Publication Number	Description
5990-6521EN	Monitoring antibody charge variants using a combination of Agilent 3100 OFFGEL Fractionation by isoelectric point and high sensitivity protein detection with the Agilent 2100 Bioanalyzer
5989-6419EN	Combining immuno-depletion, protein and peptide OFFGEL electrophoresis for the efficient fractionation of plasma prior to LC-MS analysis
5989-5814EN	Efficient protein fractionation and identification with the Agilent 3100 OFFGEL Fractionator
5989-5206EN	Efficient peptide fractionation and improved protein identification with the Agilent 3100 OFFGEL Fractionator
5989-8419EN	Alternative to 2D gel electrophoresis – OFFGEL electrophoresis combined with high sensitivity on-chip protein detection

This list only provides an overview of selected OFFGEL application notes. Visit our website at www.agilent.com/chem/offgel for a complete list of all available application and technical notes.

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