

Agilent ScreenTape Consumables and Reagents for the Agilent TapeStation Systems



Agilent offers a variety of ScreenTape consumables and reagents for the Agilent TapeStation systems:

- RNA and High Sensitivity RNA ScreenTape

For the analysis of total RNA samples from eukaryotic or prokaryotic origin providing quality, quantity, and sizing information. The RNA integrity number equivalent (RIN $^{\rm e}$) delivers an instant and objective evaluation of eukaryotic and prokaryotic total RNA degradation.

- DNA and High Sensitivity DNA ScreenTape

For the separation and analysis of DNA fragments and libraries up to 5,000 base pairs. Ideal for sample quality control (QC) in next-generation sequencing (NGS) workflows.

- Genomic DNA and High Sensitivity Genomic DNA ScreenTape

For the separation and analysis of DNA samples up to 60,000 base pairs. The assays provide an automated numerical assessment of genomic DNA quality, the DNA integrity number (DIN), and are therefore the ideal QC tools for NGS and array comparative genomic hybridization (aCGH) workflows.

Cell-free DNA ScreenTape

For the separation and analysis of cell-free DNA (cfDNA) samples including detection of high molecular weight DNA contaminations. The software automatically calculates the %cfDNA of the sample.

TapeStation RNA ScreenTape and Reagents

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



RNA ScreenTape ordering information

Part Number	Description	Quantitiy
5067-5576	RNA ScreenTape. For 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 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/ μ L. Includes 10 μ L 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.	

RNA ScreenTape specifications

Analytical Specifications	RNA ScreenTape	High Sensitivity RNA ScreenTape
Sensitivity ¹	5 ng/μL	100 pg/µL
Quantitative precision	10 % CV	15 % CV
Quantitative accuracy	±20 %	±30 %
Quantitative range	25 – 500 ng/μL	500 – 10,000 pg/μL
RIN ^e functional range ²	25 – 500 ng/μL	1,000 - 25,000 pg/μL
Maximum buffer concentration	200 mM Tris	10 mM Tris
in sample	20 mM EDTA	1 mM EDTA
	or 50 mM NaCl	
Physical Specifications		
	16 samples < 20 min	16 samples < 35 min
Analysis time	96 samples < 95 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

TapeStation DNA ScreenTape and Reagents

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



DNA ScreenTape ordering information

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Part Number	Description	Quantity
D1000 ScreenTa	pe 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 17 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 30 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.	
D5000 ScreenTa	pe 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 Se	creenTape 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 S	creenTape 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

DNA ScreenTape specifications

Analytical Specifications	D1000 ScreenTape	High Sensitivity D1000 ScreenTape	D5000 ScreenTape	High Sensitivity D5000 ScreenTape
Sizing range	35 – 1,000 bp	35 – 1,000 bp	100 – 5,000 bp	100 – 5,000 bp
Typical resolution	35 – 300 bp: 15% 300 – 1,000 bp: 10%	35 - 300 bp: 15% 300 - 1,000 bp: 10%	400 – 5,000 bp: 15%	400 – 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 - 1 ng/μL: 15 % CV 1 - 50 ng/μL: 10 % CV	15 % CV	0.1 – 1 ng/μL: 15% CV 1 – 50 ng/μL: 10% CV	15 % CV
Quantitative accuracy	±20 % ²	±20 % ²	±20 %	±25 %
Quantitative range	0.1 – 50 ng/μL	10 – 1,000 pg/μL	0.1 – 50 ng/μL	10 – 1,000 pg/μL
Maximum buffer concentration in sample	20 mM KCI 60 mM phosphate buffer 60 mM guanidine-HCI 240 mM NaCI 60 mM NaOAc	7 mM KCl 20 mM phosphate buffer 20 mM guanidine-HCl 80 mM NaCl 20 mM NaOAc	250 mM KCI 250 mM Tris-HCI 125 mM NaCI 50 mM NaOAc 25 mM MgCI ₂ 25 mM BSA 25 mM guanidine-HCI	25 mM KCI 25 mM Tris-HCI 12.5 mM NaCI 5 mM NaOAc 2.5 mM MgCI ₂ 2.5 mM BSA 2.5 mM guanidine-HCI
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 ScreenTape 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 ratio >3 (single peak)

² Determined using the 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

www.agilent.com/genomics/tapestation

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This information is subject to change without notice.

