

Agilent D5000 ScreenTape and High Sensitivity D5000 ScreenTape Assays

Accelerate DNA analysis with the Agilent TapeStation systems



Fast and easy DNA quality control

The Agilent 4150 and 4200 TapeStation systems offer automated sample processing of 1 to up to 96 samples for quick and reliable RNA and DNA sample quality control (QC).

The D5000 ScreenTape assay allows for the separation and analysis of DNA fragments from 100 bp to 5,000 bp, ideal for larger sized NGS libraries. Depending on the sample concentration, it is possible to choose between the D5000 ScreenTape and the High Sensitivity D5000 ScreenTape application.

Sample quality control analysis has never been so easy – simply load the TapeStation system with the appropriate D5000 ScreenTape device, loading tips, and samples in 8-tube strips or a 96-well plate, and you will be reviewing results in less than two minutes per sample.

DNA analysis during the NGS workflow

The Agilent TapeStation systems and the DNA ScreenTape assays can be used at several steps of the next-generation sequencing (NGS) workflow such as shearing of genomic DNA (gDNA) and library amplification to ensure DNA library and sample quality. The figure shows the analysis of SureSelect QXT libraries generated with varying input amount of genomic DNA (20, 50 and 80 ng) with the D5000 ScreenTape assay.

Key features

Excellent accuracy and precision

Reliably analyze size and quantity of PCR fragments, fragmented DNA, and DNA libraries.

High sensitivity

Qualify your precious DNA sample down to a concentration of 5 pg/μL per fragment.

Easy to use

Simplify your sample quality control with ready-to-use ScreenTape consumables and reagents.

Fast results

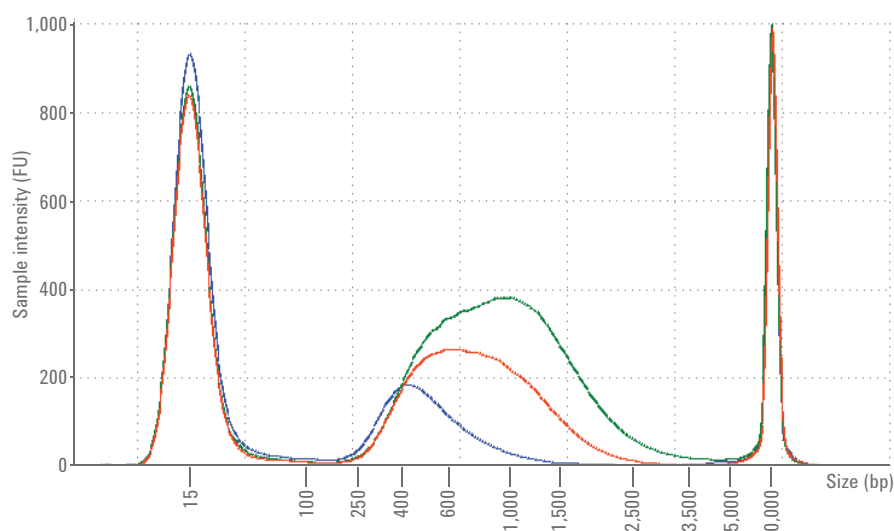
Obtain results in less than 2 minutes per sample independent of total sample number.

Zero carryover

Avoid sample carryover by running each DNA sample in a separate lane of the ScreenTape device.

Minimal sample consumption

Use no more than 2 μL of your precious samples per run – even for high sensitivity analysis.



Analysis of SureSelect QXT libraries generated with varying input amount of genomic DNA (20, 50 and 80 ng) with the D5000 ScreenTape assay. (Agilent publication number 5991-8191EN)

Analytical specifications

	D5000 ScreenTape	High Sensitivity D5000 ScreenTape
Sizing range	100 - 5,000 bp	100 - 5,000 bp
Typical resolution	400 - 5,000 bp; 15%	400 - 5,000 bp; 15%
Sensitivity ¹	0.1 ng/μL	5 pg/μL
Sizing precision ²	5% CV	10% CV
Sizing accuracy ²	±10%	±15%
Quantitative precision	0.1 - 1 ng/μL; 15% CV 1 - 50 ng/μL; 10% CV	15% CV
Quantitative accuracy	±20%	±25%
Quantitative range	0.1 - 50 ng/μL	10 - 1,000 pg/μL
Maximum buffer concentration	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

¹ Signal-to-noise >3 (single peak)

² Determined using ladder as sample

Physical specification

	D5000 ScreenTape	High Sensitivity D5000 ScreenTape
Analysis time	15 samples < 25 min 96 samples < 135 min	15 samples < 20 min 96 samples < 120 min
Samples per consumable	15	15
Sample volume required	1 µL	2 µL
Kit stability	6 months	6 months
Kit size	105 samples	105 samples

Ordering information

	Part number
Agilent 4150 TapeStation system	
Includes the 4150TapeStation instrument, TapeStation software, vortexer, accessories, plastic consumables, user information, installation and familiarization services. <i>Does not include ScreenTape consumables and reagents.</i>	G2992AA
Agilent 4200 TapeStation system	
Includes the 4200TapeStation instrument, laptop PC, TapeStation software, vortexer, accessories, plastic consumables, user information, installation and familiarization services. <i>Does not include ScreenTape consumables and reagents.</i>	G2991BA
Agilent D5000 ScreenTape	
Includes 7 ScreenTape devices. (Order with 5067-5589)	5067-5588
Agilent D5000 Reagents	
Includes ladder and sample buffer. (Order with 5067-5588)	5067-5589
Agilent D5000 Ladder	
For the analysis of DNA from 100 to 5000 bp. Ladder only.	5067-5590
Agilent High Sensitivity D5000 ScreenTape	
Includes 7 ScreenTape devices. (Order with 5067-5593)	5067-5592
Agilent High Sensitivity D5000 Reagents	
Includes ladder and sample buffer. (Order with 5067-5592)	5067-5593
Agilent High Sensitivity D5000 Ladder	
For the high sensitivity analysis of DNA from 100 to 5000 bp. Ladder only.	5067-5594

www.agilent.com/genomics/dna-screentape

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