

Agilent D1000 ScreenTape and High Sensitivity D1000 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 96 samples for quick and reliable RNA and DNA sample quality control.

The D1000 ScreenTape has been developed for the separation and analysis of DNA fragments from 35 bp to 1,000 bp. Depending on the sensitivity requirements, it is possible to choose between the D1000 ScreenTape and the High Sensitivity D1000 ScreenTape application.

DNA sample quality control has never been so easy — simply load the TapeStation system with the appropriate D1000 ScreenTape device, loading tips, and samples in tube strips or 96-well plates, and you will be reviewing results in less than 1 minute per sample.

DNA analysis during the NGS workflow

The Agilent 4150 and 4200 TapeStation systems can be used at several steps of the next-generation sequencing (NGS) workflow such as the shearing of genomic DNA (gDNA) and the library amplification, to ensure sample quality. The figure shows the analysis of a sheared gDNA sample of the SureSelect target enrichment workflow with the D1000 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/ μ L per fragment.

Easy to use

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

Scalable throughput

Analyze any number of samples at constant price per sample.

Fast results

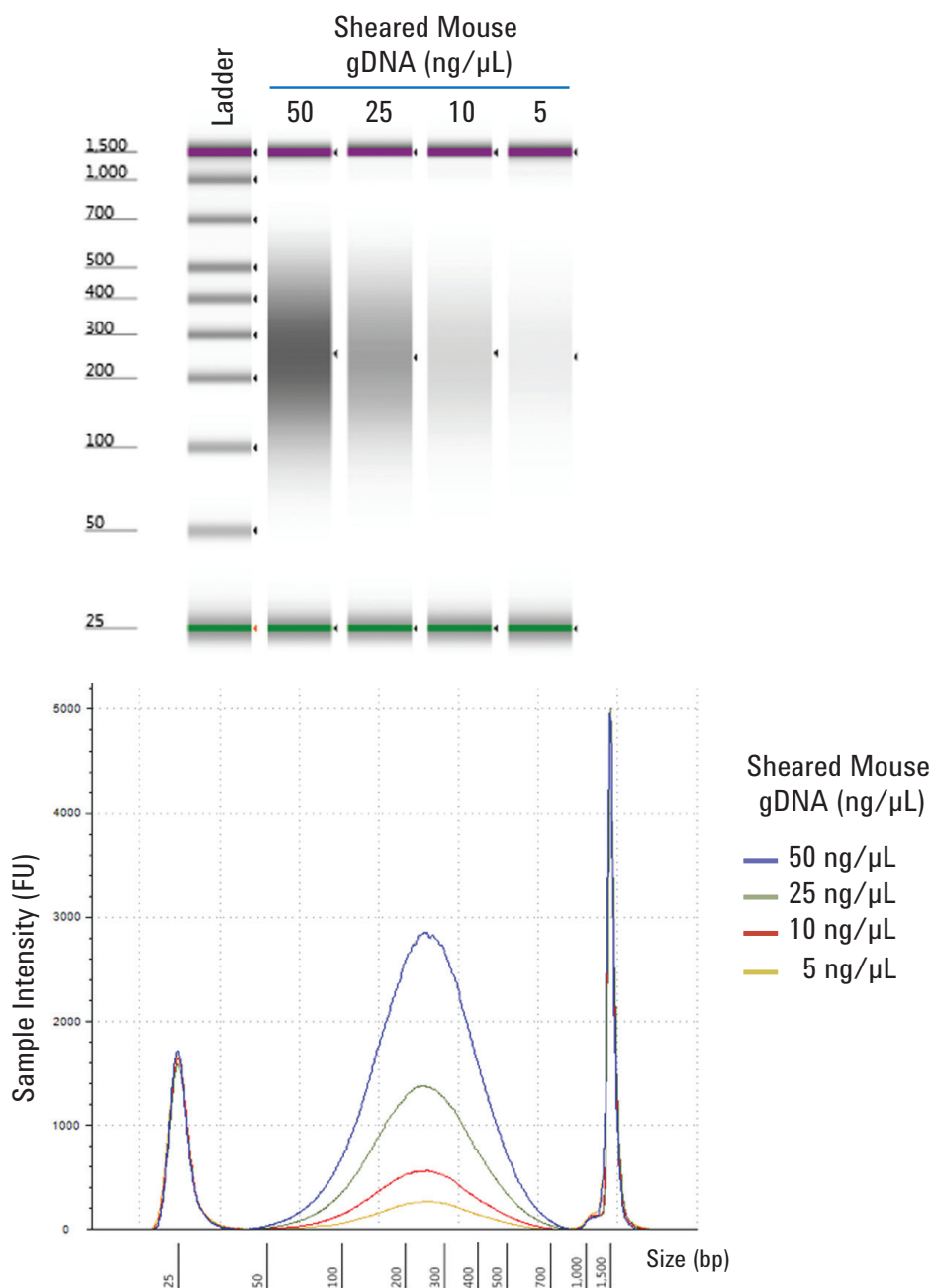
Obtain results in as little as one minute per sample independent of total sample number.

Zero carryover

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

Minimal sample consumption

Use not more than 2 μ L of your precious samples per run — even for high sensitivity analysis.



Analytical specifications

	Agilent D1000 ScreenTape	Agilent High Sensitivity D1000 ScreenTape
Sizing range	35 - 1,000 bp	35 - 1,000 bp
Typical resolution	35 - 300 bp: 15% 300 - 1,000 bp: 10%	35 - 300 bp: 15% 300 - 1,000 bp: 10%
Sensitivity ¹	0.1 ng/μL	5 pg/μL
Sizing precision ²	5% CV	5% CV
Sizing accuracy ^{2,3}	± 10%	± 10%
Quantitative precision	0.1 - 1 ng/μL: 15% CV 1 - 50 ng/μL: 10% CV	15% CV
Quantitative accuracy	± 20%	± 20%
Quantitative range	0.1 - 50 ng/μL	10 - 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
¹ Signal/noise ratio > 3 for a single peak		
² Determined using D1000/High Sensitivity D1000 ladder as sample		
³ Accuracy for electronic ladder: ± 20%		
Physical specification	Agilent D1000 ScreenTape	Agilent High Sensitivity D1000 ScreenTape
Analysis time	16 samples < 20 minutes 96 samples < 90 minutes	16 samples < 20 minutes 96 samples < 105 minutes
Samples per consumable	16	16
Sample volume required	1 μL	2 μL
Kit stability	6 months	6 months
Kit size	112 samples	112 samples

Ordering information

	Part number
Agilent 4150 TapeStation system	
Includes the 4150 TapeStation system, computer, 4150 TapeStation software, vortexer, accessories, consumables, user information and installation and familiarization services <i>Does not include ScreenTape consumables and reagents.</i>	G2992AA
Agilent 4200 TapeStation system	
Includes the 4200 TapeStation system, computer, 4200 TapeStation software, vortexer, accessories, consumables, user information and installation and familiarization services <i>Does not include ScreenTape consumables and reagents.</i>	G2991BA
Agilent D1000 ScreenTape Assay	
D1000 ScreenTape	5067-5582
D1000 Reagents	5067-5583
Optional	
D1000 Ladder	5067-5586
D1000 Sample Buffer	5067-5602
Agilent High Sensitivity D1000 ScreenTape Assay	
High Sensitivity D1000 ScreenTape	5067-5584
High Sensitivity D1000 Reagents	5067-5585
Optional	
High Sensitivity D1000 Ladder	5067-5587
High Sensitivity Sample Buffer	5067-5603

www.agilent.com/genomics/dna-screentape

For Research Use Only. Not for use in diagnostic procedures.
PR7001-1489

This information is subject to change without notice.

© Agilent Technologies, Inc. 2020 -2023
Printed in the USA, October 1, 2023
5991-2493EN

