Agilent RNA ScreenTape and High Sensitivity RNA ScreenTape

Accelerate RNA analysis with the Agilent 2200 TapeStation

Automated RNA quality control with scalable throughput

The Agilent 2200 TapeStation system provides automated, fast and reliable RNA, DNA and protein electrophoresis.

The RNA ScreenTape has been developed for automated, efficient and reliable RNA analysis, including RNA characterization and quality assessment. The RNA integrity number equivalent (RIN^e) provides an instant and objective evaluation of total RNA degradation. Depending on the sensitivity requirements of your application it is possible to choose between the RNA ScreenTape and the High Sensitivity RNA ScreenTape.

RNA quality control has never been so easy – simply load the 2200 TapeStation instrument with the appropriate RNA ScreenTape, 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 Features

Gold standard for RNA QC

Rely on the market-leading RNA quality standard (RIN) by using the RIN equivalent, RIN^e.

Excellent sensitivity

Qualify your precious RNA sample down to a concentration of 100 pg/µL.

Zero carryover

In addition to individual filtered loading tips for each sample – the ScreenTape runs each RNA sample in a separate lane.

Scalable throughput

Analyze any number of samples without affecting the cost per sample.

Low sample need

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

Fast results

Obtain results in as little as one minute per RNA sample.

High flexibility

Implement RNA QC in multiple workflows such as microarrays, next generation sequencing, quantitative RT-PCR.

Complete solution for RNA quality control

- Agilent 2200 TapeStation system (G2964AA or G2965AA)
- RNA ScreenTape (5067-5576) or High Sensitivity RNA ScreenTape (5067-5579)
- RNA ScreenTape Sample Buffer (5067-5577) or High Sensitivity RNA ScreenTape Sample Buffer (5067-5580)
- RNA ScreenTape Ladder (5067-5578) or High Sensitivity RNA ScreenTape Ladder (5067-5581)

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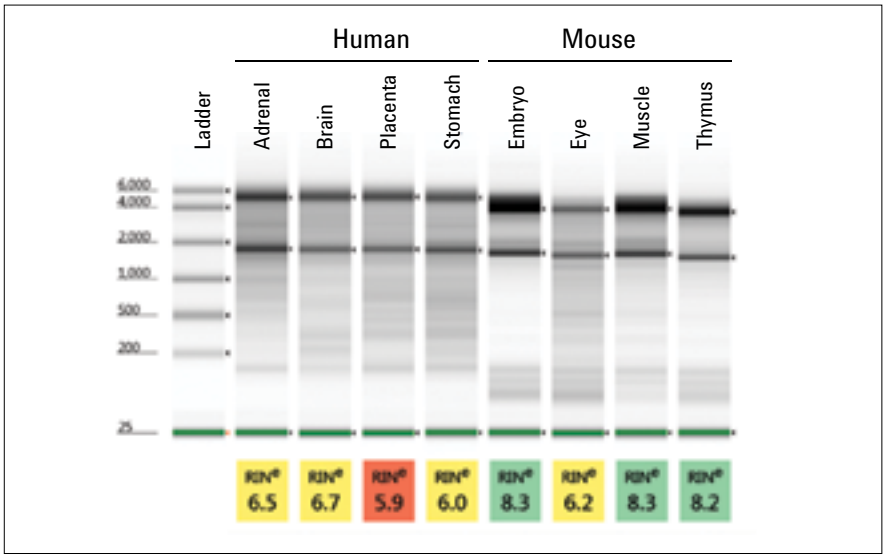
RNA ScreenTape applications



Analytical Specifications	Agilent RNA ScreenTape	Agilent High Sensitivity RNA ScreenTape
Quality score	RIN^e	RIN^e
Sensitivity[1]	5 ng/µL	100 pg/µL
RIN^e functional range	25 - 500 ng/µL	1000 - 25,000 pg/µL
Quantitative range	25 - 500 ng/µL	500 - 10,000 pg/µL
Quantitative precision[2]	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

For total RNA samples

[1] Signal/noise >3 in water and TE

[2] Within a ScreenTape

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

Total RNA analysis with the RNA ScreenTape

For total RNA samples, the 2200 TapeStation software automatically calculates the RNA integrity number equivalent (RIN^e), an objective measurement of RNA degradation.

The ribosomal peaks are resolved; 28S and 18S in mammalian samples, and small RNAs are clearly visible at different intensities, depending on extraction method, tissue type and species' origin.

Typical RNA ScreenTape applications

RNA QC in multiple gene expression workflows:

- microarray analysis
- next generation sequencing
- quantitative RT-PCR

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