

Small RNA Analysis

Agilent Fragment Analyzer systems

Precise and Rapid Quantification of Small RNA for All Downstream Applications



Small RNA plays significant role in various biological processes, making small RNA a frequent target of NGS and other downstream applications. An accurate understanding of the size and quantity of small RNA present in a sample is crucial to the successful preparation of NGS libraries.

The Agilent Small RNA Kit for the Fragment Analyzer accurately size and quantifies small RNA present in a purified or total RNA sample, focusing on the fragments under 200 nt. The kit specifically targets microRNA (miRNA), which can be evaluated using the Small RNA Size Region function in ProSize data analysis software to accurately determine the concentration and percent of miRNA in a sample, based on adjustable parameters.

Features and benefits

- **High sensitivity**
Detect concentrations as low as 25 pg/ μ L of purified small RNA.
- **Fast run times**
Complete analysis in under 30 minutes using a short capillary array.
- **Enhanced resolution**
Visualize small RNA in a total RNA sample, including the concentration and percentage of miRNA.

Ordering Information

Kit	Part no.
Agilent Small RNA Analysis kit	DNF-470-0275

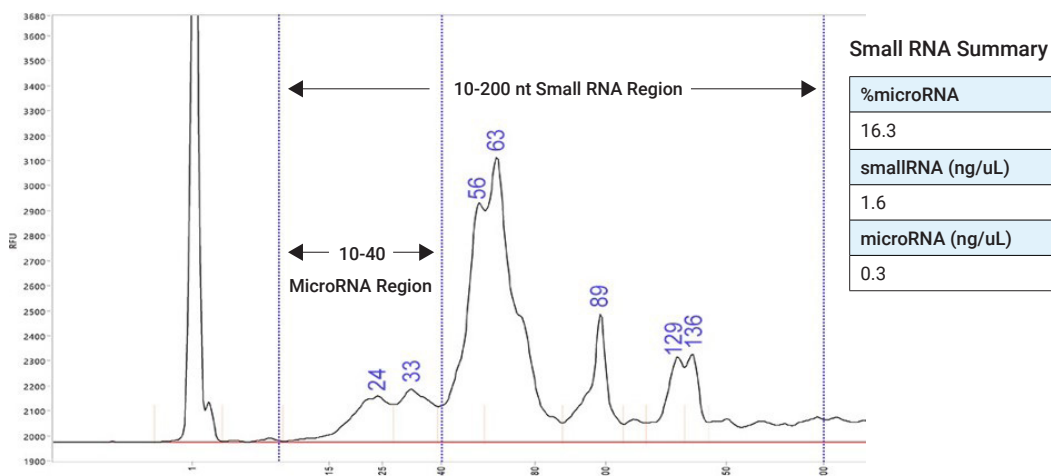


Figure 1. A total RNA sample was separated on a Fragment Analyzer system using the Small RNA (DNF-470) kit. The Small RNA kit provides high resolution and quantification precision of the small RNA region. ProSize data analysis software displays an electropherogram of the separation and quantifies the small RNA (10 to 200 nt) and miRNA (10 to 40 nt) regions of the sample. The regions can be changed based on user preferences. The concentrations of each region and the percentage of the sample that is miRNA are displayed in the small RNA Summary table. LM = Lower Marker.

Specifications^{1,2}

	Agilent Small RNA kit
Kit Size	275 samples
RNA Sizing Range	15 - 200 nt
Qualitative Range ³	25 - 2,500 pg/μL (microRNA region)
Quantitative Range ³	50 - 2,000 pg/μL (microRNA region)
Quantification Precision ³	25% CV (Small RNA ladder)

Recommended sample concentrations

Sample type	Concentration
MicroRNA	25 - 2,500 pg/μL
Small RNA	1 - 20 ng/μL
Total RNA	5 - 100 ng/μL

¹ The FA 12-Capillary Array Ultra-Short, 22 cm is only available for 5200 Fragment Analyzer System.

² Specifications not applicable to 55 cm long arrays.

³ Results using total RNA, small RNA, and microRNA samples and fragments diluted in nuclease-free water.

Learn more about the [Agilent Small RNA Kit](#) for the Fragment Analyzer

Buy online: [agilent.com/chem/store](https://www.agilent.com/chem/store)

For Research Use Only. No for use in diagnostic procedures.
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This information is subject to change without notice.