

Seamless Integration Into an Automated Workflow

Agilent 5400 Fragment Analyzer system



Parallel capillary electrophoresis system for high-throughput labs with robotic integration

The Agilent 5400 Fragment Analyzer system redefines the bounds of nucleic acid quality control (QC) analysis, integrating parallel capillary electrophoresis with world leading robotic systems. Now, the analysis of DNA and RNA samples can be performed around-the-clock.

A detailed and rigorously tested API (application program interface) controls the movement of all drawers and the electrophoresis methods are activated through either TCP/Ethernet or serial port connections. Autodata processing can also be activated for large-scale assessment postelectrophoresis and sample names can be added through LIMS-integrated sample data files.

Built on the robust and reliable 5300 Fragment Analyzer platform, this system is compatible with all the same high-quality reagent kits. Use quantitative kits for analyzing NGS libraries, large fragment smears, genomic DNA, RNA, and small RNA. Additionally, you can use qualitative kits for analyzing PCR amplicons, SSRs/microsatellites, CRISPR-generated mutations, or digested DNA.

Key Features

- **Robotic integration:** A custom API which can activate instrument drawers offers seamless integration with most laboratory automation systems.
- **High-throughput separations:** Unattended analysis of more than 2,400 samples every 24 hours.
- **High separation resolution:** Resolve a wide range of DNA and RNA fragments. Achieve as low as 3 bp resolution with high sizing accuracy for fragments under 300 bp.
- **Low cost-per-sample:** Choose qualitative or quantitative gel kits that best suit your analysis needs. Realize lower operational costs than other analytical instruments.
- **Decreased prep time:** With room temperature stable reagents and no daily array handling, minimal work is needed to setup runs.
- **Wide dynamic range:** Most reagent kits cover approximately two orders of magnitude. High and standard sensitivity kits are available for most applications, extending the overall range of detection.
- **User-friendly software:** Automate data scoring. Calculate fragment size and concentration. Create, save, and load customized reports and scoring parameters for flagging and smear analysis.
- **Peace of mind:** Comprehensive instrument IQ/OQ services and assay familiarization.



Figure 1. The 5400 Fragment Analyzer system uses a modified stage and sample drawers allowing the stage to open and close sample drawers on command.

Specifications

5400 Fragment Analyzer System	
Weight	38.5 kg (85 lbs)
Dimensions (w x d x h)	35 x 51 x 61 cm (14 x 20 x 24 inches)
Line voltage	100 - 200 VAC
Line frequency	50 - 60 Hz
Power consumption	200VA

Ordering information

5400 Fragment Analyzer System		Part number
Includes the 5400 Fragment Analyzer system, computer, accessories, Fragment Analyzer software, and user information. Capillary array ordered separately.		M5312AA
Reagent Kits		Part number
Quantitative analysis kits		
DNA/NGS fragment analysis	NGS Fragment kit (1-6000 bp)	DNF-473-0500 DNF-473-1000
	HS NGS Fragment kit (1-6000 bp)	DNF-474-0500 DNF-474-1000
	HS Small Fragment kit	DNF-477-0500
	Large fragment analysis	DNF-492-0500 DNF-492-1000
Genomic DNA analysis	Large fragment analysis	DNF-492-0500 DNF-492-1000
	HS Large Fragment 50 kb kit	DNF-464-0500
RNA analysis	Genomic DNA 50 kb kit	DNF-467-0500
	HS Genomic DNA kit	DNF-468-0500
	Small RNA kit	DNF-470-0275
	RNA kit (15 nt)	DNF-471-0500 DNF-471-1000
Qualitative analysis kits	HS RNA kit (15 nt)	DNF-472-0500 DNF-472-1000
	Qualitative analysis kits	
dsDNA 905 Reagent kit (1-500 bp)		DNF-905-K0500 DNF-905-K1000
dsDNA 910 Reagent kit (35-1500 bp)		DNF-910-K0500 DNF-910-K1000
dsDNA 915 Reagent kit (35-5000 bp)		DNF-915-K0500 DNF-915-K1000
dsDNA 920 Reagent kit (75-15000 bp)		DNF-920-K0500
dsDNA 930 Reagent kit (75-20000 bp)		DNF-930-K0500 DNF-930-K1000
dsDNA 935 Reagent kit (1-1500 bp)		DNF-935-K0500 DNF-935-K1000
Plasmid DNA kit		DNF-940-K0500
TILLiNG/Mutation Discover kits		
CRISPR Discovery Gel kit		DNF-910-K1000CP
Capillary Arrays		Part number
FA 96-Capillary Array Short		A2300-9650-3355
FA 96-Capillary Array Long		A2300-9650-5580

www.agilent.com/genomics/fragment-analyzer

For Research Use Only. Not for use in diagnostic procedures.
PR7000-8039

This information is subject to change without notice.

© Agilent Technologies, Inc. 2019, 2021
Printed in the USA, August 1, 2021
5994-0415EN