

Agilent Fragment Analyzer Consumables

Analysis kits and capillary arrays



The unique design features of the Fragment Analyzer instruments combines ease of use automated electrophoresis with the flexibility to switch between DNA and RNA analysis kits without maintenance between runs. The reagent kit portfolio covers a broad range of applications and offers efficient solutions for separating and analyzing nucleic acids.

Quantitative

The kits below use internal standards for accurate quantification and are ideal for various applications such as next-generation sequencing (NGS) quality control, cfDNA, and genomic DNA.

DNA/NGS Fragment Analysis

Kit name	NGS Fragment Kit (1-6000 bp) DNF-473	HS NGS Fragment kit (1-6000 bp) DNF-474	Small Fragment kit DNF-476	HS Small Fragment kit DNF-477
Sizing range	100 – 6,000 bp	100 – 6,000 bp	50 – 1,500 bp	50 – 1,500 bp
Sizing accuracy	± 5%	± 5%	± 5%	± 5%
Sizing precision	2% CV	2% CV	2% CV	2% CV
Separation resolution ¹	100 bp – 1,000 bp ≤ 5% 1,000 bp – 6,000 bp ≤ 10%	100 bp – 1,000 bp ≤ 5% 1,000 bp – 6,000 bp ≤ 10%	50 bp – 900 bp ≤ 5% 900 bp – 1,500 bp ≤ 10%	50 bp – 900 bp ≤ 5% 900 bp – 1,500 bp ≤ 10%
Quantification accuracy	± 25%	± 25%	± 25%	± 25%
Quantification precision	15% CV	15% CV	15% CV	15% CV
Quantification range	DNA Fragments: 0.1 ng/μL - 10 ng/μL DNA Smears: 5ng/μL - 100 ng/μL	DNA Fragments: 5 pg/μL - 500 pg/μL DNA Smears: 50 pg/μL - 5 ng/μL	DNA Fragments: 0.1 ng/μL - 10 ng/μL DNA Smears: 5ng/μL - 100 ng/μL	DNA Fragments: 5 pg/μL - 500 pg/μL DNA Smears: 100 pg/μL - 5 ng/μL
Physical specifications				
Analysis time ¹	50 min	50 min	45 min	45 min
Sample volume	2 μl	2 μl	2 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months	Minimum 4 months	Minimum 4 months
Kit size	500 and 1,000 samples	500 and 1,000 samples	500 samples	500 samples

¹ Short array

Genomic DNA Analysis

Kit name	Genomic DNA 50 kb kit DNF-467	HS Genomic DNA 50 kb kit DNF-468
Sizing range	75 – 60,000 bp	75 – 60,000 bp
Quantification accuracy	± 30%	± 30%
Quantification precision	25% CV	25% CV
Quantification range	25 ng/μL - 250 ng/μL	0.3 ng/μL - 12 ng/μL
Physical specifications		
Analysis time ¹	60 min	60 min
Sample volume	1 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months
Kit size	500 samples	500 samples

¹ Short array

Quantitative

Large Fragment Analysis

Kit name	HS Large Fragment 50 kb kit DNF-464	Large Fragment kit DNF-492
Sizing range	75 - 48,500 bp	75 - 20,000 bp
Sizing accuracy	N/A	± 15%
Quantification accuracy	± 25%	± 25%
Quantification precision	20% CV	20% CV
Quantification range	DNA Fragments: 5 pg/μL - 600 pg/μL DNA Smears: 50 pg/μL - 5 ng/μL	DNA Fragments: 0.1 ng/μL - 10 ng/μL DNA Smears: 5ng/μL - 100 ng/μL
Physical specifications		
Analysis time ¹	55 min	50 min
Sample volume	2 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months
Kit size	500 samples	500 samples

¹ Short array

RNA Analysis

Kit name	Small RNA kit DNF-470	RNA kit (15 nt) DNF-471	HS RNA kit (15 nt) DNF-472
Sizing range	15 - 200 nt	200 - 6,000 nt	200 - 6,000 nt
Sizing accuracy	N/A	Total RNA: ± 5% mRNA: ± 10%	± 20%
Sizing precision	N/A	5% CV	20% CV
Qualitative range	microRNA region: 25 pg/μL - 2,500 pg/μL	Total RNA or mRNA: 5 ng/μL - 500 ng/μL IVT mRNA: 1 ng/μL - 100 ng/μL	Total RNA: 50 pg/μL - 5,000 pg/μL mRNA: 500 pg/μL - 5,000 pg/μL
Quantitative range	50 pg/μL - 2,000 pg/μL	Total RNA or mRNA: 25 ng/μL - 500 ng/μL IVT mRNA: 20 ng/μL - 100 ng/μL	Total RNA: 50 pg/μL - 5,000 pg/μL mRNA: 500 pg/μL - 5,000 pg/μL
Quantification accuracy	N/A	± 20%	± 30%
Quantification precision	25% CV	10% CV	20% CV
Physical specifications			
Analysis time ¹	24 min	Total RNA or mRNA: 40 min IVT mRNA: 45 min	40 min
Sample volume	2 μl	2 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months	Minimum 4 months
Kit size	275 samples	500 and 1,000 samples	500 and 1,000 samples

¹ Short array

Qualitative

The kits below are for sizing and qualitative analysis, using a double injection of sizing markers and sample. Appropriate for genotyping or analysis of SSR's/microsatellites, and PCR fragments.

Kit name	dsDNA 905 Reagent kit (1-500 bp) DNF-905	dsDNA 910 Reagent kit (35-1500 bp) DNF-910	dsDNA 915 Reagent kit (35-5000 bp) DNF-915	dsDNA 920 Reagent kit (75-15000 bp)DNF-920
Sizing range	35 – 500 bp	35 – 1,500 bp	35 – 5,000 bp	75 – 15,000 bp
Sizing accuracy	± 5%	± 5%	± 5%	± 5%
Sizing precision	2% CV	2% CV	2% CV	2% CV
Separation resolution ¹	5 bp @ 300 bp	35 bp – 100 bp ≤ 10%; 100 bp – 1,500 bp ≤ 5%	35–100 bp ≤ 10%; 100–1,000 bp ≤ 5%; 1,000–5,000 bp ≤ 10%	75 bp – 1,500 bp ≤ 5%; 1,500 bp – 15,000 bp ≤ 10%
Quantification range	0.5 ng/μL – 50 ng/μL	0.5 ng/μL – 50 ng/μL	0.5 ng/μL – 50 ng/μL	0.5 ng/μL – 50 ng/μL
Physical specifications				
Analysis time ¹	60 min	45 min	50 min	50 min
Sample volume	2 μl	2 μl	2 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months	Minimum 4 months	Minimum 4 months
Kit size	500 and 1,000 samples	500 and 1,000 samples	500 and 1,000 samples	500 samples

¹ Short array

Kit name	dsDNA 930 Reagent kit (75-20000 bp) DNF-930	dsDNA 935 Reagent kit (1-1500 bp) DNF-935	Plasmid DNA kit DNF-940
Sizing range	75 – 20,000 bp	100 – 1,500 bp	2,000 – 10,000 bp
Sizing accuracy	± 10%	± 5%	± 10%
Sizing precision	5% CV	2% CV	N/A
Separation resolution ¹	75 bp -1,500 bp ≤ 10% 1,500 bp – 20,000 bp ≤15%	1 bp – 100 bp ≤ 15% 100 bp – 1,500 bp ≤ 10%	N/A
Quantification range	0.5 ng/μL – 50 ng/μL	0.5 ng/μL – 50 ng/μL	0.1 ng/μL – 1 ng/μL
Physical specifications			
Analysis time ¹	30 min	20 min	30 min
Sample volume	2 μl	2 μl	2 μl
Guaranteed shelf life	Minimum 4 months	Minimum 4 months	Minimum 4 months
Kit size	500 and 1,000 samples	500 and 1,000 samples	500 samples

¹ Short array

Capillary

Agilent developed various capillary arrays for the Fragment Analyzer systems to provide superior separation resolution and nucleic acid quantification.

Array name	Part number
FA 12-Capillary Array Ultrashort	A2300-1250-2247
FA 12-Capillary Array Short	A2300-1250-3355
FA 12-Capillary Array Long	A2300-1250-5580
FA 48-Capillary Array Short	A2300-4850-3355
FA/ZAG 96-Capillary Array Short	A2300-9650-3355
FA/ZAG 96-Capillary Array Long	A2300-9650-5580

www.agilent.com/genomics/fragment-analyzer

For Research Use Only. Not for use in diagnostic procedures.
PR7001-2070

This information is subject to change without notice.

© Agilent Technologies, Inc. 2021, 2024
Published in the USA, July 8, 2024
5994-0407EN