

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 | 40 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 | ± 15% | ± 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: 5 ng/μL - 500 ng/μL 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: 25 ng/μL - 500 ng/μL 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: 40 min 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, January 18, 2024
5994-0407EN