

Agilent HS NGS Fragment Kit (1-6000 bp) 5200 Fragment Analyzer System

Quick Guide

For Research Use Only.

Not for use in diagnostic procedures.

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Kit Specifications

Specifications	Description
DNA sizing range	100 bp – 6,000 bp
Separation resolution	100 bp – 2,000 bp ≤ 5%; 2,000 bp – 6,000 bp ≤ 10%
DNA sizing accuracy ¹	± 5% or better
DNA sizing precision ¹	2% CV
DNA fragment concentration range ¹	5 pg/μL to 500 pg/μL input DNA
DNA smear concentration range ¹	50 pg/μL to 5,000 pg/μL input DNA
DNA quantification accuracy ¹	± 25%
DNA quantification precision ¹	15% CV
Maximum DNA concentration	500 pg/μL per fragment; 5 ng/μL total

¹ Using DNA fragment standards and DNA smears prepared in 1x TE Buffer

Kit Components

Agilent HS NGS Fragment kit, 1–6000 bp (DNF-474)

Part Number	Name
DNF-240	NGS Separation Gel
DNF-600-U030	Intercalating Dye
DNF-355	5x 930 dsDNA Inlet Buffer (Dilute to 1x)
DNF-475	5x Capillary Conditioning Solution (Dilute to 1x)
DNF-373	HS NGS Diluent Marker (1–6000 bp)
DNF-396	HS NGS DNA Ladder
DNF-497	0.25x TE Rinse Buffer
DNF-300	BF-25 Blank Solution
GP-440-0100	Capillary Storage Solution (sold separately)

Analysis Protocol

Gel preparation

Prepare gel/dye mixture for 5200 Fragment Analyzer system:

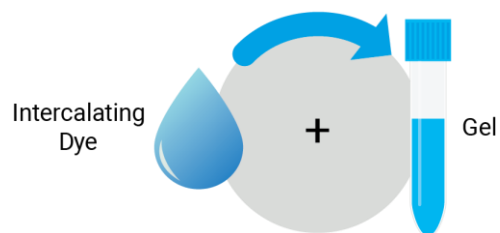
# of samples to be analyzed ¹	Volume of Intercalating Dye	Volume of gel
12	1.0 µL	10 mL
24	1.5 µL	15 mL
36	2.0 µL	20 mL
48	2.5 µL	25 mL
96	4.5 µL	45 mL

¹ Typically one sample well per separation is dedicated to the ladder.

Instrument and sample preparation

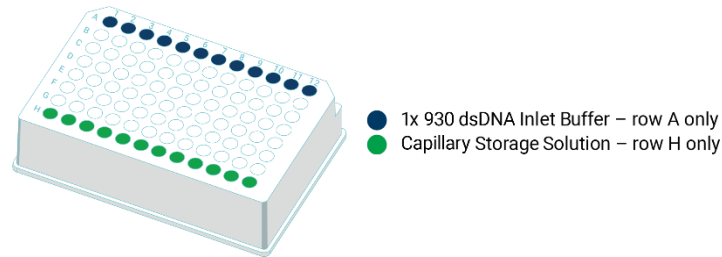
- 1 Mix fresh gel and dye. Refill 1x Conditioning Solution as needed.

1.0 µL dye / 10 mL gel

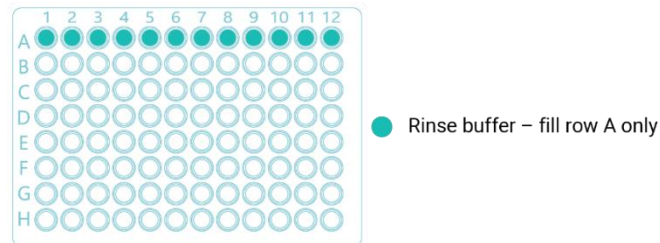


- 2 Place a fresh 1x 930 dsDNA Inlet Buffer tray on the 5200 Fragment Analyzer system. Fill row A (1.0 mL/well). Replace 1x 930 dsDNA Inlet Buffer daily.

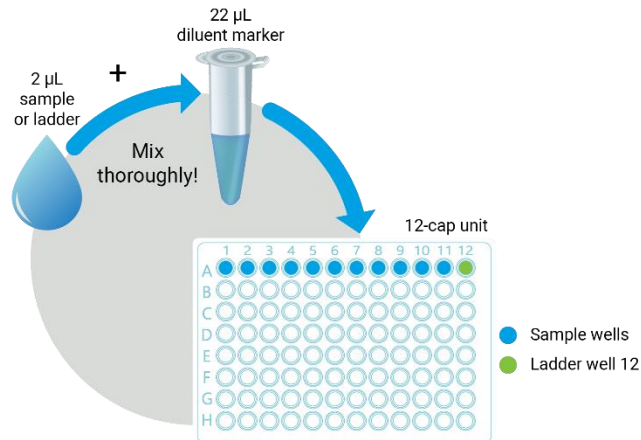
- Place Capillary Storage Solution in row H (1.0 mL/well). Replace Capillary Storage Solution every 2-4 weeks.



- Place 0.25x TE Rinse Buffer plate in marker drawer location. Fill row A (200 μ L/well). Replace 0.25x TE Rinse Buffer daily.



- Mix samples or HS NGS DNA Ladder with HS NGS Diluent Marker (1–6000 bp) in sample plate. Add 24 μ L of BF-25 Blank Solution to unused wells of the row to be analyzed.



WARNING

Working with Chemicals

The handling of reagents and chemicals might hold health risks.

- Refer to product material safety datasheets for further chemical and biological safety information.
- Follow the appropriate safety procedures such as wearing goggles, safety gloves and protective clothing

Fragment Analyzer software operating procedure

- 1 Select **Tray** and **Row** to run for 12-Cap.
- 2 Enter **Sample ID** and **Tray ID** (optional).
- 3 Select **Add to Queue**, select the **DNF-474-(22, 33 or 55) – HS NGS Fragment 1-6000bp** method from the dropdown menu.
- 4 Enter **Tray Name**, **Folder Prefix**, and **Notes** (optional).
- 5 Select **OK** to add method to the queue.
- 6 Select  to start the separation.

NOTE

Please refer to the Kit Guide for additional details.

Technical Support and Further Information

For technical support, please visit www.agilent.com.

It offers useful information, support and current developments about the products and technology.

www.agilent.com

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