AUTOMATED ELECTROPHORESIS

Experion™ DNA 12K Analysis Kit

Quick Guide

1 Turn On Experion Electrophoresis Station and Launch Experion Software

2 Equilibrate Kit Reagents

- Remove the DNA 12K stain, gel (or gel-stain solution, if available), and loading buffer from storage, and equilibrate to room temperature
- Invert each tube several times; vortex the contents and briefly centrifuge

Note: Protect stain and gel-stain solution from light at all times.

3 Prepare the Gel-Stain Solution

- Transfer 200 µl DNA 12K gel (**green cap**) to a DNase-free 0.65 ml microcentrifuge tube
- Add 10 µl DNA stain (**blue cap**) to the tube of 200 µl DNA 12K gel; vortex and briefly centrifuge
- Transfer gel-stain solution to a spin filter tube and centrifuge at 1,500 x g for 10 min

Note: Filtered gel-stain stored at 4°C may be used for up to 1 month. Discard after 1 month; do not refilter.

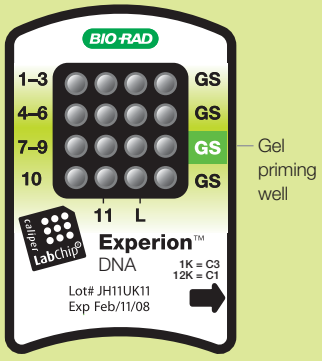
4 Prepare the DNA Samples and DNA 12K Ladder

- Remove the DNA 12K ladder (**clear cap**) from storage, briefly centrifuge, and then vortex to mix; place the tube of ladder on ice
- Prepare dilutions of DNA sample in TE buffer or DNase-free water to concentrations within the linear range of this assay (0.5–50 ng/µl total DNA); make sure the salt concentration of the sample does not exceed 250 mM KCl (or 250 mM NaCl), 15 mM $MgCl_2$

5 Prime the Chip

- Remove a DNA chip from its packaging and place it on the chip platform in the Experion priming station
- Add 9 µl gel-stain solution into the gel priming well
- Close the lid of the priming station, set the pressure to **C**, and set the time to **1**
- Press the **Start** button
- When priming is complete, remove the primed chip from the priming station
- Flip the chip over, and visually inspect the microchannels for trapped air bubbles or incomplete priming

Note: Do **not** touch the glass surface of the chip.



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6 Load the Samples and DNA 12K Ladder Into the Chip

- Pipet 9 µl gel-stain solution into the other 3 wells labeled **GS**
- Pipet 5 µl loading buffer (yellow cap) into each sample well (1–11) and into the well labeled **L** (ladder well); do not leave any sample well empty
- Pipet 1 µl DNA 12K ladder into the well labeled **L**
- Pipet 1 µl DNA sample into each of the 11 sample wells; pipet 1 µl TE buffer or DNase-free water into any unused sample wells
- Place the chip in the Experion vortex station and vortex for 1 min
- Run the chip in the Experion electrophoresis station within 5 min of loading

7 Run the DNA 12K Analysis

- Place the loaded chip onto the electrophoresis station chip platform and close the lid
- Select **New Run** and the **DNA 12K** assay; enter the project name and run name prefix
- Click the start icon (▶) in the software; in the subsequent window, select the number of samples to run and select **Start** to begin the run
- When the run is complete, remove and discard the used chip

8 Clean the Electrodes After a Run

- Place a cleaning chip filled with 800 µl DNase-free water into the electrophoresis station
- Close the lid for 60 sec to clean the electrodes; open the lid and remove the cleaning chip
- Leave the lid open for 60 sec to allow the electrodes to dry completely, then close the lid
- Discard the water, cover the chip, and store for next use

Ordering Information

Catalog #	Description
700-7001	Experion System, 100–120 V, for RNA and DNA analysis, includes electrophoresis station, priming station, vortex station, software, USB2 cable, test chip, instructions (analysis kits sold separately)
700-7002	Experion System, 220–240 V, for RNA and DNA analysis
700-7108	Experion DNA 12K Analysis Kit for 10 Chips, includes 10 DNA chips, Experion DNA 12K reagents and supplies for 10 chips
700-7163	Experion DNA Chips, 10
700-7165	Experion DNA 12K Reagents and Supplies, for 10 chips, includes 650 µl DNA 12K gel, 40 µl DNA stain, 20 µl DNA 12K ladder, 750 µl DNA 12K loading buffer, 3 spin filters
700-7251	Experion Cleaning Chips, 10
700-7254	Experion Spin Filters, 10
700-7262	Experion DNA 12K Ladder