June 2022

Quick-Start Guide

QIAxcel® DNA High-Sensitivity Kit

For electrophoretic analysis of DNA samples using the QIAxcel Connect system

The QIAxcel DNA High-Sensitivity Cartridge should be stored at 2–8°C upon arrival. The QX HS Intensity Calibration Marker, QX DNA HS Alignment Marker, QX DNA HS Size Marker 100 bp – 1 kb should be stored at –30 to –15°C. All remaining buffers and kit components can be stored and room temperature (15–25°C).

Further information

- *QIAxcel DNA High-Sensitivity Kit Handbook*: **www.qiagen.com/HB-2936**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- For instrument and software installation, creating user profiles, and creating a new process profile, see the *QIAxcel Connect User Manual*.

Procedure

Preparing the gel cartridge and buffer tray

1. Allow all reagents, especially the Gel Cartridge, to equilibrate to room temperature for at least 20 min.
2. Prepare the buffer tray:
   2a. Fill the WP and WI positions each with 8 ml QX HS Wash Buffer and add 2 ml mineral oil.
   2b. Fill the buffer position with 18 ml QX HS Separation buffer and cover with 4 ml mineral oil.

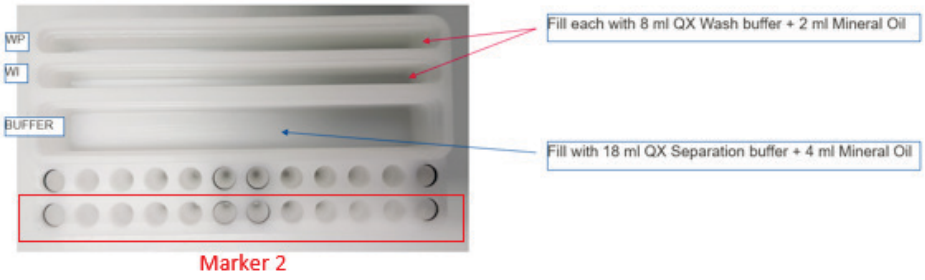

Figure 1. Buffer tray setup

Prepare the calibration marker

1. Dilute the QX HS Intensity Calibration Marker 1:100 with QX DNA HS Dilution Buffer (2 µl + 198 µl).
2. Load 15 µl of the diluted calibration marker in each tube of a 12-tube strip and add 1 drop of mineral oil to prevent evaporation.
3. Place the 12-tube strip into position Marker 2 of the buffer tray (see Figure 1).
4. Start the Calibration from the **Service** environment of the software and acknowledge the calibration results afterwards (takes approx. 15 min). Refer to "Calibrating a cartridge" (Section 6.5.1) of the *QIAxcel Connect User Manual*.

Prepare the QX DNA HS Alignment Marker

1. Dilute the QX DNA HS Alignment Marker 1:100 with QX DNA HS Dilution Buffer (2 µl + 198 µl).
2. Load 15 µl of the diluted calibration marker in each tube of a 12-tube strip and add 1 drop of mineral oil to prevent evaporation.
3. Place the 12-tube strip into position Marker 1 of the buffer tray (see Figure 1).

Prepare the DNA samples and QX DNA HS Size Marker

1. Dilute the QX DNA HS Size Marker 1:100 with QX DNA HS Dilution Buffer (less than 100 µl is not recommended).
2. If required, dilute DNA sample with QX DNA HS Dilution Buffer.
3. For each sample, pipet 6–10 µl of sample into a corresponding position of a 0.2 ml 12-tube strip or a 96-well plate.
4. Pipet 6–10 µl of pre-diluted Size Marker into another position of the 12-tube strip or 96-well plate.

Note: If working with less than 10 µl of sample or marker, or if samples and marker are left in instrument for prolonged time, add 1 drop of mineral oil.

Note: If analyzing less than 12 samples, fill empty positions with QX DNA HS Dilution Buffer to protect the capillaries from damage.

Important note: The 1:100 dilution of all markers is the working solution for 1 day and should be prepared fresh for each day.

Perform the run

1. Switch on the QIAxcel instrument.
2. Switch on the computer linked to the instrument and open the ScreenGel® software.
3. Log in to the software in the DNA mode and navigate to the **Process environment**.
4. Select an appropriate process profile from the drop-down list.
5. Open the **Sample Selection** dialog and name the experiment.
6. Mark the rows containing samples by clicking the **Sample Row Selection** panel. If running the size marker side by side with the samples, define the position of the size marker by right-clicking the corresponding position.
7. Open the **Run Check** dialog and confirm that samples and markers are loaded correctly. Click **Run** to start the run. For information on analysis settings, refer to *QIAxcel Connect User Manual.*

Document Revision History

Date	Changes
05/2022	Initial release
06/2022	Corrected the title in the footer.

Scan QR code for handbook.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.