

Producing DE20 droplets

Materials

- Xdrop® or Xdrop Sort
- Xdrop DE20 Cartridge (pictured)
- Xdrop DE Gasket
- Droplet Oil (DE) ●
- Outer phase (e.g., DE PCR buffer ● or a custom buffer with DE stabilizing solution for DNA ○ or DE stabilizing solution for cells ○)
- Sample mix (e.g., DNA fragments in DE PCR mix ● or living cells in growth medium)



Important: If you are using a custom buffer or a medium for the first time, perform a 10 min test run as described in Chapter 2 of the Xdrop Manual and Chapter 2 of the Xdrop Sort Manual.

Method

1. Leave the cartridge in its closed original packaging for about 20 min to reach room temperature. Allow all reagents listed under Materials to reach room temperature before loading.
2. Unpack the cartridge and load the lanes to be used in this order. Refer to image above for well positions. Pipette onto the side of the wells to avoid introducing air bubbles.
 - I. Load **300 µl** of your outer phase into well **#A**
 - II. Load **40 µl** of your outer phase onto the shelf in collection well **#D**
 - III. Load **40 µl** of your sample mix into well **#C**
 - IV. Load **100 µl** of Droplet Oil (DE) ● into well **#B**
3. Place the white Xdrop DE Gasket onto the cartridge, using the angled corner to orient the gasket.
4. Push the Start button at the front of the Xdrop instrument and press [Open](#).
5. Position the cartridge in the instrument drawer and press [Close](#) → [Next](#) → [DE](#) → [DE20](#).
6. Select the lanes to be used (the green color indicates that the lane is selected) and press [Run](#).
7. When the message “Your droplets are ready” is shown, press [Finish](#) → [Open](#).
8. Remove the cartridge from the instrument, press [Close](#) and push the Start button to power down.
9. Collect the DE20 droplets in their buffer from collection well **#D** (white layer at the bottom of the well).
10. Wash residual DE20 droplets from the collection well using **200 µl** of outer phase.

Please refer to the Xdrop Manual or Xdrop Sort Manual for more information.

Samplix® and Xdrop® are registered trademarks of Samplix ApS. Copyright © 2022 Samplix ApS.