Quick-Start Protocol March 2016

GeneRead™ Size Selection Kit

MinElute® Spin Columns should be stored at 2–8°C immediately upon receipt. The remaining components of the GeneRead Size Selection Kit (50) (cat. no. 180514) should be stored dry at room temperature (15–25°C) and are stable for at least 12 months under these conditions if not otherwise stated on label.

Further information

- *GeneRead Size Selection Handbook*: **www.qiagen.com/HB-1519**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- This protocol is optimized for the size selection of sheared DNA in common elution buffers (Buffers EB, TE and AE), and DNA libraries prepared with, for example, the GeneRead DNA Library Prep I Kit. See the *GeneRead Size Selection Handbook* for additional protocols using other kits.
- All centrifugation steps should be performed at full speed (maximum 20,000 x *g*) in a conventional, table-top centrifuge.
- Wash steps should be performed using 80% ethanol prepared from 96–100% ethanol.
- Symbols: ▲ size selection of sheared DNA; ■ size selection of DNA libraries prepared with the GeneRead DNA Library Prep I Kit.

1. Add 4 volumes of Buffer SB1 to 1 volume of ▲ the sheared DNA sample or ■ the DNA library sample prepared at step 9 of the GeneRead DNA Library Prep I Kit procedure, and mix. For example, add 360 µl Buffer SB1 to a 90 µl sample.
2. To bind DNA, apply the sample to the MinElute spin column and centrifuge for 1 min. Discard the flow-through. Place the MinElute spin column back into the same tube.

3. To wash, add 700 µl of 80% ethanol to the MinElute spin column and centrifuge for 1 min. Discard the flow-through. Place the MinElute spin column back into the same tube.
4. Repeat step 3.
5. Centrifuge the MinElute spin column for an additional 1 min at maximum speed.
6. Place the MinElute spin column into a clean 1.5 ml microcentrifuge tube (provided).
7. Add ▲ 17 µl Buffer EB or ■ 90 µl Buffer TE to the center of the membrane, let the column stand for 1 min and then centrifuge for 1 min.

   IMPORTANT: Ensure that the buffer is dispensed directly onto the center of the membrane.
8. ▲ Sheared DNA is now size selected and ready for use.

   ■ For the DNA library sample prepared with the GeneRead DNA Library Prep I Kit, proceed with steps 9–15.

   IMPORTANT: Keep the spin column and the flow-through.
9. Place the MinElute spin column from step 8 into a new 2 ml collection tube (provided). Add 4 volumes of Buffer SB1 (~360 µl) to 1 volume of the flow-through, and mix.
10. Re-apply the mixture to the MinElute spin column and centrifuge for 1 min. Discard the flow-through.
11. To wash, add 700 µl of 80% ethanol to the MinElute spin column and centrifuge for 1 min. Discard the flow-through. Place the MinElute spin column back into the same tube.
12. Repeat step 11.
13. Centrifuge the MinElute spin column for an additional 1 min at maximum speed.
14. Place the MinElute spin column in a clean 1.5 ml microcentrifuge tube (provided).
15. For elution, add 17 µl Buffer EB to the center of the membrane, let the MinElute spin column stand for 1 min and then centrifuge for 1 min.

    IMPORTANT: Ensure that the buffer is dispensed directly onto the center of the membrane for complete elution of the bound DNA.

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