





This Quick Reference Card lists examples of equipment and other lab materials that may be needed for sequencing on PacBio® instruments. Note that although vendor part numbers are listed herein, they may not always be up to date. Verify and obtain the latest part numbers and relevant documentation from the vendor or manufacturer's website.







### Quantification

Vendor	Item
Agilent Technologies (Agilent)	Bioanalyzer® 2100 platform 
Agilent	Consumable: DNA 7500 chip for Bioanalyzer 2100 (PN 5067-1506)
Agilent	Consumable: DNA 12000 chip for Bioanalyzer 2100 (PN 5067-1508) 
Invitrogen	Qubit® Consumable: Assay Tubes (PN Q32856)
Life Technologies	Qubit Quantitation Platform - Fluorometer 
Thermo-Scientific	Nanodrop® (2000, 2000c, 8000) spectrophotometer 


## Vortexers and Centrifuges

Vendor	Item
Eppendorf	<ul style="list-style-type: none"> <li>• MiniSpin® Plus Centrifuge or</li> <li>• MiniSpin 5424 Centrifuge or</li> <li>• MiniSpin 5415R Centrifuge (for g-TUBE shearing)</li> </ul> 
VWR	Vortex-Genie® laboratory mixer (PN 14005-824) 
VWR	Microtube and microplate holder for Vortex-Genie mixer (PN 12620-874) 
VWR	Rotator (PN 13916-822 / 13916-824 / 13916-828 / 13916-826) or MagBead Binding and constructing large insert libraries 
VWR	Strip-Tube Centrifuge (PN 37000-700) 
Benchmark Scientific	Microcentrifuge MyFuge™ Mini System 

## Ultra-Sonication/Mechanical Shearing

Vendor	Item
Covaris and/or Digilab	<p>Covaris<sup>®</sup> S2 Shearing Device (recommended for shearing between 250 bp to 5 kb insert sizes) or Covaris Shearing Device E-Series (not pictured) for 96 samples and/or Digilab<sup>®</sup> HydroShear<sup>®</sup> Shearing Device</p> 
Covaris	<p>S2 consumable: miniTUBEs (PN 520064) for 2 kb - 5 kb</p> 
Covaris	<p>S2 consumable: microTUBEs recommended for shearing between 250 bp to 1.5 kb insert sizes with Covaris S2 Shearing Device (PN 520045)</p> 
Covaris	<p>S2 accessory: THQmini Holder for miniTUBEs (PN 500206)</p> 
Covaris	<p>S2 accessory: THQmicro Holder for microTUBEs (PN 500114)</p> 
Covaris	<p>g-TUBE<sup>®</sup> device for shearing 6 kb to 20 kb insert size ranges (PN 520079)</p> 
Diagenode	Megaruptor <sup>®</sup> system for > 30 kb libraries
Diagenode	Megaruptor consumable: Hydropore-long for > 30 kb libraries
Diagenode	Megaruptor consumable: Hydropore-short for 2 kb to 9 kb



## Thermal Cyclers and Thermomixers

Vendor	Item
Any Major Laboratory Supplier (MLS)	96-Well 0.2 mL block Thermal Cycler (with controllable heated lid) <ul style="list-style-type: none"> <li>• Must be able to hold standard 0.2 mL PCR tubes</li> <li>• For high throughput environments, 96-well plate capacity recommended</li> <li>• Minimum 60 minute thermal stability for temperatures of 4°C – 80°C (39.2°F – 176°F)</li> <li>• Overnight thermal stability needed at 4°C (39.2°F)</li> </ul> 
MLS	Thermomixers for library construction incubations



## Heat Sealers

Vendor	Item
Thermo Fisher Scientific	ALPS 50 V-Manual Heat Sealer (Catalog No. AB-1443) <i>Required</i>  Note that if you have a heat sealer, it must be capable of maintaining temperatures between 160°C to 178°C. Heat sealers exceeding this range may have negative impacts on sequencing results.
Thermo Fisher Scientific	Pierceable Sealing Foil Sheets (PN AB-0757)

## Size-Selection Systems

Vendor	Item
Sage Science	BluePippin™ BLU0001 system ( <i>required for large insert libraries</i> )  
Sage Science	Optional: SageELF™ for whole sample fractionation
Sage Science	Optional: PippinHT for high throughput size selection
Sage Science	Consumable: 0.75% Dye-Free Agarose Gel Cassettes for BluePippin System (PN BLF7510)  

## Gel Electrophoresis

Vendor	Item
Bio-Rad	Pulsed Field Gel Electrophoresis System: CHEF Mapper® XA
Bio-Rad	10X TBE Electrophoresis Buffer
Bio-Rad	Pulsed Field Certified Agarose
<b>OR</b>	
Sage Science	Pippin Pulse Power Supply (gel tank sold separately) PN PPI0200 
Galileo Bioscience	Pippin Pulse accessory: Gel Tank with Tray and Comb (PN 80-1214) 
Sage Science	10X KBB Buffer (PN KBB1001)
Lonza	SeaKem® GOLD Agarose (PN 50152/50150)

## Needle Shearing

Vendor	Item
SAI Infusion	26G Blunt End Needles for >30 kb libraries (PN B26-150)
Becton Dickenson	1 mL Luer Lok-Tip Syringe for >30 kb libraries (PN 309628)

## Pipetters

Vendor	Item
MLS	Pipetman® p2, p10, p20, p100, p200, p1000
MLS	Filter Tips p2, p10, p20, p100, p200, p1000

## LoBind Tubes

Vendor	Item
Eppendorf	PCR tubes*, 0.2 mL (Catalog No. 0030124332)
Eppendorf	2 mL LoBind microcentrifuge tubes (Catalog No. 022431048)
Eppendorf	Low-adhesion DNA LoBind Tubes, 1.5 mL, PCR clean, 250 pieces (Catalog No. 022431021)
Eppendorf	Low-adhesion DNA LoBind Tubes, 0.5 mL, PCR clean, 250 pieces (Catalog No. 022431005)

\*Corning® Axygen® consumables are not compatible with SMRT Sequencing and should not be used in the preparation of amplicons or SMRTbell™ templates.

## Other

Vendor	Item
MLS	Plate Centrifuge
MLS	Standard Lab Freezer (-20°C)
MLS	Standard Lab Refrigerator (4°C)
MLS	Gel Imaging System
MLS	Ethanol
MLS	Molecular Biology Grade H <sub>2</sub> O
MLS	Slurry Ice Maker
MLS	50 mL Falcon® Tube
Life Technologies	Magnetic Particle Concentrator

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