

Consumables

- Agencourt AMPure XP beads
- NEBNext® Companion Module for Oxford Nanopore Technologies® Ligation Sequencing (cat # E7180S). Alternatively, you can use the three NEBNext® products below:
- NEBNext FFPE Repair Mix (M6630)
- NEBNext End repair / dA-tailing Module (E7546)
- NEBNext Quick Ligation Module (E6056)
- 1.5 ml Eppendorf DNA LoBind tubes
- 0.2 ml thin-walled PCR tubes
- Nuclease-free water (e.g. ThermoFisher, cat # AM9937)
- Freshly prepared 70% ethanol in nuclease-free water

Optional consumables

- Covaris g-TUBE (for fragmenting input amounts between 100 and 500 ng)

Equipment

- Hula mixer (gentle rotator mixer)
- Magnetic rack
- Microfuge
- Vortex mixer
- Thermal cycler at 20° C and 65° C
- P1000 pipette and tips
- P200 pipette and tips
- P100 pipette and tips
- P20 pipette and tips
- P10 pipette and tips
- P2 pipette and tips
- Ice bucket with ice
- Timer

Optional Equipment

- Agilent Bioanalyzer (or equivalent)
- Qubit fluorometer (or equivalent for QC check)
- Eppendorf 5424 centrifuge (or equivalent)

Additional materials for:

PCR Sequencing Kit/PCR Barcoding Kit

- NEB Blunt/TA Ligase Master Mix (M0367)
- LongAmp Taq 2X Master Mix (e.g. NEB M0287)
- 10 mM Tris-HCl pH 8.5 with 50 mM NaCl
- *Exonuclease I (NEB, M0293) - optional*

1D sequencing selecting for long reads

- BluePippin device and gel cassette

PCR barcoding (with the 12 or 96 barcoding expansion)

- LongAmp Taq 2X Master Mix (e.g. NEB cat # M0287)
- Magnet for 96 well plates (for 96 barcodes)
- Multi-channel pipette (for 96 barcodes)
- 0.2 ml 96-well PCR plates and seals (for 96 barcodes)

Premium whole genome amplification

- Qiagen REPLI-g Midi Kit
- T7 Endonuclease I (NEB, cat # M0302)
- TE buffer: 10 mM Tris (pH 8.0), 0.1 mM EDTA
- PEG 8000, 50% w/v
- 0.5 M EDTA, pH 8
- 5 M NaCl (Sigma, cat # 71386)
- 1 M Tris-HCl pH 8.0