

Materials List for:

Ultra-Long Read Sequencing for Whole Genomic DNA Analysis

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Materials

Name	Company	Catalog Number	Comments
Reagents			
Absolute ethanol	Sigma-Aldrich	E7023	
Agencourt AMPure XPbeads	Beckman	A63881	magnetic beads for cleanup
BD conventional needles	Becton Dickinson	305136	27G, for mechanical shearing
BD Luer-Lok syringe	Becton Dickinson	309628	for mechanical shearing
Blunt/TA Ligase Master Mix	NEB	M0367S	
Countess Cell Counting Chamber Slides	Invitrogen	C10228	for cell counting
EDTA	Invitrogen	AM9261	pH 8.0, 0.5 M, 500 mL
Flow Cell	Oxford Nanopore Technologies	FLO-MIN106	R9.4.1
HG00773 cells	Coriell Institute	HG00733	cells used in this protocol
Ligation Sequencing Kit 1D	Oxford Nanopore Technologies	SQK-LSK108	nanopore ligation kit
MaXtract High Density tubes	Qiagen	129073	gel tubes
NEBNext FFPE DNA Repair Mix	NEB	M6630S	
NEBNext Ultra II End Repair/dA-Tailing Module	NEB	M7546S	
Nuclease-free water	Invitrogen	AM9937	
Phosphate-Buffered Saline, PBS	Gibco	70011044	10X, pH 7.4
Phenol:chloroform:IAA	Invitrogen	AM9730	
Proteinase K	Qiagen	19131	20 mg/mL
Qubit dsDNA BR Assay Kit	Invitrogen	Q32850	fluorometer assays for DNA quantification
Rapid Sequencing Kit	Oxford Nanopore Technologies	SQK-RAD004	nanopore transposase kit
RNase A	Qiagen	19101	100 mg/mL
SDS	Invitrogen	AM9822	10% (wt/vol)
Sodium chloride solution	Invitrogen	AM9759	5.0 M
TE buffer	Invitrogen	AM9849	pH 8.0
Tris	Invitrogen	AM9856	pH 8.0, 1 M
Triton X-100 solution	Sigma-Aldrich	93443	~10%
Equipment			
Bio-Rad C1000 Thermal Cycler	Bio-Rad	1851196EDU	
Centrifuge 5810R	Eppendorf	22628180	
Countess II FL Automated Cell Counter	Life Technologies	AMQAF1000	for cell counting
DynaMag-2 Magnet	Life Technologies	12321D	magnetic rack

Eppendorf ThermoMixer	Eppendorf	5382000023	for incubation
Freezer	LabRepCo	LHP-5-UFMB	
GridION	Oxford Nanopore Technologies	GridION X5	nanopore device used in this protocol
HulaMixer Sample Mixer	Thermo Fisher Scientific	15920D	rotator mixer
MicroCentrifuge	Benchmark Scientific	C1012	
NanoDrop ND-1000 Spectrophotometer	Thermo Fisher Scientific	ND-1000	for UV reading
Pippin Pulse	Sage Science	PPI0200	pulsed-field gel electrophoresis instrument
Qubit 3.0 Fluorometer	Invitrogen	Q33216	fluorometer
Refrigerator	LabRepCo	LABHP-5-URBSS	
Vortex-Genie 2	Scientific Industries	SI-A236	
Water bath	VWR	89501-464	