

Materials List for:

Semiconductor Sequencing for Preimplantation Genetic Testing for Aneuploidy

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Materials

Name	Company	Catalog Number	Comments
PCR tubes, 0.2 mL	Axygen	PCR-02D-C	
UltraPure 0.5M EDTA, pH 8.0	ThermoFisher	15575020	
PBS, pH 7.4, Ca ²⁺ and Mg ²⁺ free	ThermoFisher	10010023	
1.0 M NaOH (1.0N) solution	SIGMA-ALDRICH	S2567	For Melt-off solution. Molecular grade
Eppendorf LoBind Tubes, 1.5 mL	Fisher Scientific	13-698-791	
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
ELGA PURELAB Flex 3 Water Purification System or Equivalent 18 MΩ water system	ThermoFisher	4474524	
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
PicoPLEX WGA Amplification buffer	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
PicoPLEX WGA Amplification enzyme	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
Ion OneTouch Amplification Plate			In kit: Ion OneTouch 2 Supplies (Part No. A26367). Extended kit component in Sheet 5
Ion PI Annealing Buffer			
MyOne Beads Capture Solution			
Agilent 2100 Bioanalyzer instrument	Agilent	G2939AA	
Ion OneTouch Breaking Solution (black cap)			In kit: Ion PI Hi?Q OT2 Solutions 200 (Part No. A26429). Extended kit component in Sheet 5
Dynabeads MyOne Streptavidin C1	ThermoFisher	65001	
PicoPLEX WGA Cell extraction buffer	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-00.

PicoPLEX WGA Cell extraction enzyme	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
Ion PI Chip Kit v3	ThermoFisher	A26771	
Ion Chip Minifuge, 230 V	ThermoFisher	4479673	
Ion PI dATP	ThermoFisher	A26772	
Ion PI dCTP	ThermoFisher	A26772	
Ion PI dGTP	ThermoFisher	A26772	
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
ThermoQ–Temperature Dry Bath	TAMAR	HB-T2-A	
NEBNext dsDNA Fragmentase	New England Biolabs	M0348L	
NEBNext dsDNA Fragmentase	New England Biolabs	M0348L	
Ion PI dTTP	ThermoFisher	A26772	
Ion OneTouch 2 Instrument	ThermoFisher	INS1005527	ThermoFisher Catalog number: 4474778.
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
Ion One Touch ES	ThermoFisher	8441-22	ThermoFisher Catalog number: 4469495. Extended kit component in Sheet 5
Ethanol	SIGMA-ALDRICH	51976	This can be replaced by any brand's molecular grade absolute ethanol.
PicoPLEX WGA Extraction enzyme dilution buffer	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-01.
PicoPLEX WGA Extraction enzyme dilution buffer	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-02.
Qubit 3.0 Fluorometer	ThermoFisher	Q33216	This model has been replaced by Qubit 4 Fluorometer, Catalog number: Q33226.
Qubit ds DNA HS Assay kit	ThermoFisher	M2002-02	
Qubit Assay Tubes	ThermoFisher	Q32856	
Ion PI Foaming Solution	ThermoFisher	A26772	
Index for barcoding of libraries	BaseCare		this is a in-house prepared index. Users can buy commercial product from ThermoFisher Ion Xpress Barcode Adapters Kits (Cat. No. 4474517)
Ion PI Loading Buffer	ThermoFisher	A26772	
Solid(TM) Buffer Kit-1X Low TE Buffer	ThermoFisher	4389764	
Agencour AMPure XP Kit	Beckman Coulter	A63880	
DynaMag-2 magnet (magnetic rack)	ThermoFisher	12321D	
Ion PI Master Mix PCR buffer			
Sorvall Legend Micro 17 Microcentrifuge	Micro 17	75002430	
Ion Plus Fragment Library Kit	ThermoFisher	4471252	
Nuclease-free water	ThermoFisher	AM9922	This can be replaced by other brand.

PicoPLEX WGA Nuclease-free water	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
Ion OneTouch Oil bottle			Ion PI Hi?Q OT2 Solutions 200 (Part No. A26429). Extended kit component in Sheet 5
Ion Plus Fragment Library Kit	ThermoFisher	4471252	Extended kit component in Sheet 3
double-strand DNA standard			This is a in-house prepared DNA standard for calibration of Qubit before quantification of library.
PicoPLEX WGA Preamplification buffer	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
PicoPLEX WGA Preamplification enzyme	Rubicon Genomics	R30050	This can be replaced by SurePlex DNA Amplification System, catalog number: PR-40-415101-03.
Library Amplification Primer Mix	ThermoFisher	4471252	Extended kit component in Sheet 3
Ion OneTouch Reaction Filter			Extended kit component in Sheet 5
Recovery Router			Extended kit component in Sheet 5
Recovery Tubes			Extended kit component in Sheet 5
ISP Resuspension Solution			
Ion Proton	ThermoFisher	DA8600	This model is imported by Da An Gene Co.,LTD. of Sun Yat-Sen University from ThermoFisher and has been certified by China Food and Drug Administration for clinical application. The catalog number in ThermoFisher is 4476610.
Ion PI Hi?Q Sequencing Polymerase	ThermoFisher	A26772	
Ion PI Sequencing Primer			
server for sequencer	Lenovo	T260	
Ion PI Sphere Particles			
Platinum PCR SuperMix High Fidelity	ThermoFisher	4471252	
Nalgene 25mm Syringe Filters	ThermoFisher	724-2045	Pore size: 0.45µm. Specifically for aqueous fluids.
Ion PI Hi?Q W2 Solution	ThermoFisher	A26772	
Ion PI 1X W3 Solution	ThermoFisher	A26772	
Ion OneTouch Wash Solution C1			
The Ion PGM Hi?Q View Sequencing Kit	ThermoFisher	A30044	Extended kit component in Sheet 2
Ion Plus Fragment Library Kit	ThermoFisher	4471252	Extended kit component in Sheet 3
Ion PI Hi-Q Sequencing 200 Kit (1 sequencing run per initialization)	ThermoFisher	A26772	Extended kit component in Sheet 4
Ion PI Hi?Q OT2 200 Kit	ThermoFisher	A26434	Extended kit component in Sheet 5