

Aqueous Humor as a Liquid Biopsy for Retinoblastoma: Clear Corneal Paracentesis and Genomic Analysis

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jove.com/video/62939

Materials

Name	Company	Catalog Number	Comments
1 cc syringe			surgical grade, whatever available in hospital
32 G needle			surgical grade, whatever available in hospital
Aligner			Authors use Bowtie2 (http://bowtie-bio.sourceforge.net/bowtie2/index.shtml) but other aligners such as BWA or GRCh38 will also work
Atropos			generic term: adapter remover. https://atropos.readthedocs.io/en/latest/index.html#
Bioanalyzer High Sensitivity DNA Kit	Agilent	5067-4626	generic term: DNA fragment size profiling assay
BWA-MEM			generic term: long sequence aligner. http://bio-bwa.sourceforge.net/bwa.shtml
DNAcopy	Bioconductor		generic term: DNA copy number data analysis. https://bioconductor.org/packages/release/bioc/html/DNAcopy.html
dsDNA High Sensitivity Assay	Qubit	Q32851	generic term: DNA quantification assay
FreeBayes			generic term: sequence variant determiner. https://github.com/freebayes/freebayes

ichorCNA software			generic term: CNA-based TFx estimation. https://github.com/broadinstitute/ichorCNA
Illumina platform	Illumina		generic term: NGS platform; please note that other NGS platforms will work in principle, but have not been trialed by these authors
NovoAlign (v3)	Novocraft		generic term: mapping of short reads onto reference genome. http://www.novocraft.com/products/novoalign/
QIAamp Circulating Nucleic Acid Kit	Qiagen	55114	generic term: cfDNA isolation and purification kit
QIAseq Ultralow Input Library Kit	Qiagen	180492	generic term: DNA library sequencing kit
Samtools rmdup			generic term: tool to remove duplicate reads. http://www.htslib.org/doc/samtools-rmdup.html
VarDict			generic term: variant caller. https://github.com/AstraZeneca-NGS/VarDict
Variant Effect Predictor	Ensembl		generic term: variant effect determinator. https://uswest.ensembl.org/info/docs/tools/vep/index.html