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Human Knee Meniscus Collection Protocol for scRNA-seq

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1 Works for me

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ABSTRACT

Meniscus is taken from the medial knee compartment is collected for scRNA-seq processing. The attached image indicates where the meniscal tissue is collected from.

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KEYWORDS

Meniscus, knee

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MATERIALS TEXT

Sterile drapes
Sterile gauze
Autoclaved tools
Disposable #21 scalpels
DPBS
DMEM
Antibiotic-Antimycotic
50mL conical tubes

BEFORE STARTING

Knee blocks are shipped on wet ice and received within 48 hours post-mortem from certified tissue banks. The average time from receiving the sample to harvesting cartilage from both knees is about 2 hours. Pictures are taken of knee tissues and macroscopic scoring of the cartilage is completed.

- 1 Prepare harvesting area with sterile drapes, tools and gauze. All harvesting is completed within an aseptic environment.
- 2 Wipe down the knee blocks with 95% ethanol prior to opening the joint capsule.
- 3 Once the joint capsule is opened, the femur and tibia are disarticulated and menisci are resected.
- 4 A full-thickness (sagittal) piece of medial meniscus is cut out using a #21 scalpel; the piece measures about 1.60cmX15mmx8mm and weighs around 1g. This is collected into a 50mL tube that is filled with 40mLs of [DMEM with L-Glutamine 4.5g/L Glucose and Sodium Pyruvate Fisher Scientific Catalog #MT-10-013-CV](#)
[Antibiotic-Antimycotic \(100X\) Thermo Fisher](#)
+ 1% [Scientific Catalog #15240062](#) , then placed in wet ice until the cell isolation protocol for scRNAseq begins.

See Description Section for image for the area of interest.