

Materials List for

# A Simple, Quick, and Partially Automated Protocol for the Isolation of Single Nuclei from Frozen Mammalian Tissues for Single Nucleus Sequencing

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## Materials

| Name  | Company                  | Catalog Number | Comments  |
|---|--------------------------|----------------|---|
| 1 M DTT   | Thermo Fisher Scientific | P2325          |   |
| 10% Tween 20  | Bio-Rad                  | 1662404        |   |
| 10x Magnetic Separator  | 10x genomics             | PN-120250      |   |
| 10x Vortex Adapter  | 10x genomics             | PN-120251      |   |
| 1x DPBS (10x), no calcium, no magnesium                                   | Thermo Fisher Scientific | 14190144       | stored at 4°C   |
| 30% Bovine Serum Albumin  | Sigma-Aldrich            | A9576_50ML     |   |
| 400 mM Tris-HCl, pH 8.0   | Thermo Fisher Scientific | 15568025       |   |
| 40U/μl RNaseOUT Recombinant Ribonuclease Inhibitor                        | Thermo Fisher Scientific | 10777019       | Stored at -20 °C  |
| Agilent High Sensitivity DNA Kit  | Agilent                  | 5067-4626      |   |
| Cellaca MX High-throughput Automated Cell Counter                         | Nexcelom Bioscience      | CELMXSYSF2     | Automated fluorescent cell counter                              |
| Chromium Next GEM Chip G Single Cell Kit, 16 rxns                         | 10x genomics             | PN-1000127     | Single cell gene expression reagent, stored at room temperature |
| Chromium Next GEM Secondary Holder  | 10x genomics             | PN-1000195     |   |
| Chromium Next GEM Single Cell 3' Gel Bead Kit v3.1, 4 rxns                | 10x genomics             | PN-1000129     | Single cell gene expression reagent, stored at -80 °C           |
| Chromium Next GEM Single Cell 3' GEM, Library & Gel Bead Kit v3.1, 4 rxns | 10x genomics             | PN-1000128     | Single cell gene expression reagent                             |
| Chromium Next GEM Single Cell 3' Library Kit v3.1 4 rxns                  | 10x genomics             | PN-1000158     | Single cell gene expression reagent, stored at -20 °C           |
| Chromium Next GEM Single Cell 3' GEM Kit v3.1 4 rxns                      | 10x genomics             | PN-1000130     | Single cell gene expression reagent, stored at -20 °C           |
| Divided Polystyrene Reservoirs  | VWR                      | 41428-958      |   |
| DNA LoBind Tubes 1.5ml Eppendorf  | Sigma-Aldrich            | EP0030108051   |   |
| DNA LoBind Tubes 2ml Eppendorf  | Sigma-Aldrich            | EP0030108078   |   |

|  |                          |                |   |
|--|--------------------------|----------------|---|
| Dry ice  | -                        | -              |   |
| Dynabeads MyOne SILANE   | 10x genomics             | PN-2000048     | Single cell gene expression reagent, stored at 4 °C   |
| Ethanol Pure   | Sigma-Aldrich            | E7023          |   |
| Glycerin (Glycerol), 50% (v/v)                                       | Ricca Chemical Company   | 3290-16        |   |
| Heatblock  |                          |                |   |
| High-Throughput Nexcelom Counting Plates                             | Nexcelom Bioscience      | CHM24-A100-001 | Cell counter counting plate                           |
| Low TE Buffer (10 mM Tris-HCl pH 8.0, 0.1 mM EDTA)                   | Thermo Fisher Scientific | 12090015       |   |
| Mini Centrifuge  | -                        | -              |   |
| NovaSeq 6000 SP Reagent Kit v1.5 (100 cycles)                        | Illumina                 | 2002840        |   |
| Nuclei Isolation Buffer  | S2 Genomics              | 100-063-396    | Stored at 4 °C  |
| Nuclei Isolation Cartridge   | S2 Genomics              | 100-063-287    | Precooled at 4 °C before use                          |
| Nuclei PURE 2 M Sucrose Cushion Solution                             | Sigma-Aldrich            | NUC201-1KT     | Sucrose cushion solution                              |
| Nuclei PURE Sucrose Cushion Buffer                                   | Sigma-Aldrich            | NUC201-1KT     |   |
| Nuclei Storage Reagent   | S2 Genomics              | 100-063-405    | Stored at 4 °C  |
| PCR Tubes 0.2 ml 8-tube strips                                       | Eppendorf                | 30124359       |   |
| Percoll  | GE Healthcare            | 17-0891-02     | Silica colloid solution                               |
| PhiX Control v3  | Illumina                 | FC-110-3001    |   |
| Qiagen Buffer EB   | Qiagen                   | 19086          |   |
| Qubit dsDNA HS Assay Kit   | Thermo Fisher Scientific | Q32854         |   |
| Refrigerated Centrifuge (Eppendorf 5804R)                            | Eppendorf                | 5805000010     |   |
| Refrigerated Centrifuge with Swinging-Bucket Rotor (Eppendorf 5810R) | Eppendorf                | 5811000015     |   |
| RNAseZap   | Ambion                   | AM9780         | RNAse decontamination solution                        |
| Round cell culture petri dish  | SPL                      | 330005         |   |
| Scalpel disposable   | Aesculap AG              | BA210          | pre-cooled on dry ice before use                      |
| Single Index Kit T Set A, 96 rxns                                    | 10x genomics             | PN-1000213     | Single cell gene expression reagent, stored at -20 °C |
| Singulator 100 System  | S2 Genomics              | -              | Commercially available robotic tissue dissociator     |
| Sodium Hydroxide 1M  | Sigma-Aldrich            | 72068          |   |
| SPRIselect Reagent Kit   | Beckman Coulter          | b23318         |   |
| Sterile tweezers   | -                        | -              |   |
| UltraPure DNase/RNase-Free Distilled Water                           | Thermo Fisher Scientific | 10977049       |   |
| ViaStain PI Staining Solution  | Nexcelom Bioscience      | CS1-0109-5mL   | Propidium iodide staining solution                    |
| Vortex Mixer+A2:D44  | VWR                      | -              |   |