

Materials List for

Profiling Luminal pH in Three-Dimensional Gastrointestinal Organoids Using Microelectrodes

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Materials

| Name | Company | Catalog Number | Comments |
|---|---------------------------|----------------|----------------------------|
| 3 M KCl | Unisense | | |
| 5 mL Wobble-not Serological Pipet, Individually Wrapped, Paper/Plastic, Bag, Sterile | CellTreat | 229091B | |
| 10 mL Wobble-not Serological Pipet, Individually Wrapped, Paper/Plastic, Bag, Sterile | CellTreat | 229092B | |
| 15 mL Centrifuge Tube - Foam Rack, Sterile | CellTreat | 229412 | |
| 24 Well Tissue Culture Plate, Sterile | CellTreat | 229124 | |
| 25 mL Wobble-not Serological Pipet, Individually Wrapped, Paper/Plastic, Bag, Sterile | CellTreat | 229093B | |
| 35 mm Dish No. 1.5 Coverslip 20 mm Glass Diameter Uncoated | MatTek | P35G-1.5-20-C | |
| 50 mL Centrifuge Tube - Foam Rack, Sterile | CellTreat | 229422 | |
| 70% Ethanol | BP82031GAL | BP82031GAL | |
| 70 µm Cell Strainer, Individually Wrapped, Sterile | CellTreat | 229483 | |
| 1,000 µL Extended Length Low Retention Pipette Tips, Racked, Sterile | CellTreat | 229037 | |
| Amphotericin B (Fungizone) Solution | HyClone Laboratories, Inc | SV30078.01 | |
| Biosafety Cabinet | Nuaire | NU-425-600 | Class II Type A/B3 |
| Bovine Serum Albumin | Fisher Bioreagents | BP1605-100 | |
| Cell recovery solution | Corning | 354253 | Cell dissociation solution |
| DMEM/F-12 (Advanced DMEM) | Gibco | 12-491-015 | |
| Dulbecco's Modification of Eagles Medium (DMEM) | Fisher Scientific | 15017CV | |
| Fetal Bovine Serum | HyClone Laboratories, Inc | SH30088 | |
| G418 Sulfate | Corning | 30-234-CR | |

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|--|--------------------------|---|---|
| Gentamycin sulfate | IBI Scientific | IB02030 | |
| HEPES, Free Acid | Cytiva | SH30237.01 | |
| HP Pavillion 2-in-1 14" Laptop Intel Core i3 | HP | M03840-001 | |
| Hydrochloric acid | Fisher Scientific | A144C-212 | |
| Incubator | Fisher Scientific | 11676604 | |
| iPhone 12 camera | Apple | | |
| L-glutamine | Cytiva | SH3003401 | |
| Large Kimberly-Clark Professional Kimtech Science Kimwipes Delicate Task Wipers, 1-Ply | Fisher Scientific | 34133 | |
| M 205 FA Stereomicroscope | Leica | | |
| Matrigel Membrane Matrix 354234 | Corning | CB-40234 | |
| MC-1 UniMotor Controller | Unisense | | |
| Methyl red | | | |
| MM33 Micromanipulator | Marzhauser Wetzlar | 61-42-113-0000 | Right handed |
| MS-15 Motorized Stage | Unisense | | |
| Nanoject-II | Drummond | 3-000-204 | nanoliter autoinjector |
| Penicillin/Streptomycin (10,000 U/ mL) | Gibco | 15-140-148 | |
| pH Microelectrodes | Unisense | 50-109158, 25-203452, 25-205272, 25-111626, 25-109160 | SensorTrace software is not compatible with Apple computers |
| Reference Electrode | Unisense | REF-RM-001652 | SensorTrace software is not compatible with Apple computers |
| SB 431542 | Tocris Bioscience | 16-141-0 | |
| Smartphone Camera Adapter | Gosky | | |
| Specifications Laboratory Stand LS | Unisense | LS-009238 | |
| Trypsin-EDTA 0.025%, phenol red | Gibco | 25-200-056 | |
| UniAmp | Unisense | 11632 | |
| United Biosystems Inc MINI CELL SCRAPERS 200/PK | Fisher | MCS-200 | |
| Y-27632 dihydrochloride | Tocris Bioscience | 12-541-0 | |
| µSensor Calibration Kit | Unisense/ Mettler Toledo | 51-305-070, 51-302-069 | pH 4.01 and 9.21, 20 mL packets |