

Materials List for:

Dissection, Culture and Analysis of Primary Cranial Neural Crest Cells from Mouse for the Study of Neural Crest Cell Delamination and Migration

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URL: <https://www.jove.com/video/60051>

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Materials

| Name | Company | Catalog Number | Comments |
|---|-------------------------------|--------------------|--|
| bFGF | R&D systems | 233-FB | |
| b-mercaptoethanol | Gibco | 31350-010 | |
| Tissue culture flasks | Corning | 430639 | 25cm2 culture flasks |
| DMEM (4500 mg/L glucose) | Sigma | D5671 | |
| Dulbecco's phosphate-buffered saline (dPBS) | Sigma | D8537 | |
| Ethanol | Fisher Chemicals | E/0650DF/C17 | |
| Fetal Bovine Serum | Sigma | TFS AA 10-155 | |
| Fetal Bovine Serum (ES Cell FBS) | Gibco | 26140079/16141-079 | |
| Fibronectin bovine plasma | Sigma | F1141 | |
| Gelatin from bovine skin | Sigma | G9382 | |
| L-glutamine | Sigma | G7513 | |
| Glass-bottomed, multi-well 24-well tissue culture plate | Ibidi | 82406 | Glass-bottomed, No 1.5, 24-well tissue culture dish with black sides |
| Cell migration analysis tool | Ibidi | v2.0 | Manuals for this software can be found at: https://ibidi.com/manual-image-analysis/171-chemotaxis-and-migration-tool.html . |
| Circularity Plug-in | ImageJ | v1.29 or later | The circularity plug-in is an extended version of ImageJ/ Fiji's Measure command, designed by Rasband, W., (2000) (wsr@nih.gov). |
| LIF | ESGRO by Millipore | ESG1106 | |
| Manual Cell Tracking Plug-in | ImageJ | v1.34k or later | ref Cordelieres F. Institut Curie, Orsay (France) 2005 |
| Microscope Image Analysis Software | Universal Imaging Corporation | 6.3r7 | MetaMorph Software Series 6.3r7 |
| MEM non-essential aminoacids 100X | Gibco | 11140-050 | |
| Matrigel (ECM-based Hydrogel) | Corning | 356234 | |
| Microscope | Olympus | 1X81 | Olympus 1X81 inverted microscope |
| Microscope camera | Photometrics | 512B | Photometrics CascadeII 512B camera (4x UPlanFL N, 10x |

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|-----------------------------------|--|----------|---|
| | | | UPlanFL N, 20x UPlanFL N, 40x UPlanFL N objectives) |
| Microscope controller | Olympus | 1X2-UCB | Olympus 1X2-UCB microscope controller |
| Microscope temperature controller | Solent Scientific | RS232 | Maintained at 37°C |
| Penicillin/streptomycin | Sigma | A5955 | |
| Sodium Pyruvate | Sigma | S8636 | |
| Statistics software | Graphpad Prism | v7.0 | |
| STO feeder cells | ATCC | CRL-1503 | |
| Stereomicroscope | Nikon | SMZ | |
| XY microscope stage controller | Applied Scientific Instrumentation (ASI) | MS-4400 | |