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Materials List for

# Easy and Reproducible Low-Density Primary Culture using Frozen Stock of Embryonic Hippocampal Neurons

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## Materials

| Name | Company | Catalog Number | Comments |
|---|---|---|---|
| 96 well plate | Zeon Corporation | | Gifted |
| 96 well plate | greiner | 655986 | |
| Anti-drebrin antibody (M2F6) | MBL | D029-3 | Mouse monoclonal (dilution 1:1) |
| Anti-MAP2 antibody | Millipore | AB5622 | Rabbit (dilution 1:1000) |
| Anti-mouse Alexa Fluor 568 | Thermo Fisher Scientific | A11031 | Dilution 1: 500 |
| Anti-rabbit Alexa Fluor | Thermo Fisher Scientific | A11008 | Dilution 1: 500 |
| B-27 | Gibco | 17504-044 | 2 v/v% for MEA plates; 50x for normal plates |
| Borax | Sigma | B-9876 | Final concentration 12 mM |
| Boric acid | WAKO | 021-02195 | Final concentration 50 mM |
| Bovine serum albumin | Millipore | 12659-100G | Final concentration: 3% in PBS |
| Confocal quantitative image cytometer CellVoyager CQ1 | YOKOGAWA | | Phase contrast images |
| Cytosine β-D-arabino-furanoside (Ara-C) | Sigma | C-6645 | Diluted in $dH_2O$ (final concentration: 0.2 μM) |
| DAPI | FUJIFILM | 340-07971 | Dilution 1:1000 |
| GlutaMAX | Gibco | 35050-061 | 2.5 mM for MEA plates; 400x for normal plates |
| In Cell Analyzer 2200 | Cytiva | | Fluorescence images |
| Laminin | Sigma | 114956-81-9 | Final concentration: 20 μg/mL |
| Maestro | Axion Biosystems | | MEA recordings |
| MEA plate | Axion Biosystems | M768-tMEA-48W | |
| Neurobasal | Gibco | 21103-049 | |
| Paraformaldehyde | nacalai tesque | 26126-25 | Final concentration: 4% in PBS |
| Penicillin/Streptomycin | Gibco | 15140-122 | 100 U/mL for normal plates |
| Penicillin/Streptomycin | nacalai tesque | 26253-84 | 100 μg/mL for MEA plates |

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|---|---|---|---|
| polyethyleimine | Sigma | 9002-98-6 | Final concentration: 0.1% |
| Poly-L-lysine | Sigma | P2636 | Diluted in the borate buffer (final concentration: 1 mg/mL) |
| SKY Neuron | AlzMed , Inc. | ARH001 | 1.0 x $10^6$ cells/tube |
| Sodium azide | FUJIFILM | 195-11092 | 0.1% |
| SodiumL(+)-Glutamate monohydrate | WAKO | 194-02032 | Diluted in $dH_2O$ (final concentrations: 1 µM, 3 µM, 10 µM, 30 µM, 100 µM) |