Materials List for:

Whole Cell Recording from an Organotypic Slice Preparation of Neocortex

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URL: http://www.jove.com/video/2600/

Materials

Surgery / transfection / culture:

1. Brain Slicer: Campden Vibroslice #MA572 World Precision Instruments, Sarasota, FL, USA
2. Gene Gun System: Bio-Rad Helios # 165-2431 (Bio-Rad Laboratories, 1000 Alfred Nobel Drive, Hercules, CA 94547)
   - Includes: Gene gun, helium hose assembly with regulator, tubing prep station (#165-2418), syringe kit, Tefzel tubing, tubing cutter, optimization kit (#165-2424), tubing cutter
   - Bio-Rad Helium Regulator (#165-2413)
   - disposable supplies for Helios from Bio-Rad:
     - 1.6 µm Gold Microcarriers: #165-2264
     - Tefzel Tubing: #165-2441
3. Incubator: Forma Scientific model # 3110 (Thermo-Scientific: (866) 984-3766).

Media:

1. Horse Serum: Hyclone donor equine #SH 30074. (HyClone, 925 West 1800 South, Logan, UT 84321)
2. HMEM (Minimal Essential Media plus HBSS and HEPES, no glutamine: Lonza BioWhittaker Catalog #12-137F): GIBCO/INVITROGEN, (800) 955- 6288, Option 1.
3. HBSS (GIBCO Hanks buffered saline, #24020-117): GIBCO/INVITROGEN, (800) 955- 6288, Option 1.
4. MEM (GIBCO minimal essential medium, #12360-038), GIBCO/INVITROGEN, (800) 955- 6288, Option 1.
5. 250 mL Millipore 0.2 µm filter: #SC6PU02RE
6. Plastic Transfer pipettes: Fisher #13-711-20.
7. 50 mL Millipore steriflip 0.22 µm filter (#SCGP00525)

Items 6-8 obtained from: Fisher Scientific, 1241 Ambassador Blvd, P.O. Box 14989, St. Louis, MO 63132.

Recording:

1. Pipet glass: Harvard GC150TF-10: Harvard Apparatus, 84 October Hill Road, Holliston, Massachusetts 01746
2. Sutter P-87 horizontal electrode puller: Sutter Instrument Company, One Digital Drive, Novato, CA 94949
3. Axon Instruments Multiclamp 700B amplifier: Molecular Devices, Inc. 1311 Orleans Drive, Sunnyvale, CA 94089-1136
4. PClamp 10 data acquisition software: Molecular Devices, Inc., 1311 Orleans Drive, Sunnyvale, CA 94089-1136
5. lectrode position is controlled with Sutter ROE-200 manipulators and PC-200 controller: **Sutter Instrument Company**, One Digital Drive, Novato, CA 94949.
6. Microscope: Olympus BX-50WI upright microscope with IR-DIC optics
7. IR-sensitive camera OLY-150 (Olympus) or DAGE-MTI (DAGE-MTI, 01 North Roeske Avenue, Michigan City, IN 46360).

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