

Materials List for:

# Whole-cell Patch-clamp Recordings from Morphologically- and Neurochemically-identified Hippocampal Interneurons

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## Materials

| Name                                 | Company                                                                                            | Catalog Number | Comments                                                                                    |
|--------------------------------------|----------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------|
| Transgenic vGAT-venus rats           |                                                                                                    |                | see Uematsu , <i>et al.</i> , 2008                                                          |
| Venus (515 nm) goggles               | BLS Ltd., Hungary                                                                                  |                |                                                                                             |
| Dissection tools                     | <i>i.e.</i> FST                                                                                    |                | For brain removal                                                                           |
| Vibratome                            | Leica                                                                                              | VT1200S        | Or other high end vibratome with minimal vertical oscillation                               |
| Slice holding chambers               |                                                                                                    |                | Custom-made in lab                                                                          |
| Upright IR-DIC microscope            | Olympus, Japan                                                                                     | BX50WI         | With micromanipulator system; <i>i.e.</i> Luigs and Neumann, Kleindiek <i>etc.</i>          |
| CCD camera                           | Till Photonics                                                                                     | VX55           |                                                                                             |
| 505 nm LED system                    | Cairn Research                                                                                     | OptiLED system | Or mercury lamp or other LED system <i>i.e.</i> CoolLED.                                    |
| Multiclamp 700B                      | Axon Instruments                                                                                   |                | Alternatively 2x Axopatch 200B amplifiers                                                   |
| WinWCP acquisition software          | John Dempster, Strathclyde University                                                              |                | Any quality acquisition software could be used, <i>i.e.</i> EPHUS, pClamp, Igor <i>etc.</i> |
| Electrode Puller                     | Sutter                                                                                             | P-97           | Used with box-filament                                                                      |
| Borosilicate pipette glass           | Hilgenberg, Germany                                                                                | 1405020        | 2 mm outer, 1 mm inner diameter, no filament                                                |
| Peristaltic pump                     | Gilson                                                                                             | Minipuls       | Other pumps or gravity feed could be used instead                                           |
| Digital Thermometer                  |                                                                                                    |                | Custom made                                                                                 |
| Digital Manometer                    | Supertech, Hungary                                                                                 |                |                                                                                             |
| Isolated constant voltage stimulator |  Digitimer Ltd. | DS-2A          |                                                                                             |
| Biocytin                             | Invitrogen                                                                                         | B1592          | Otherwise known as $\epsilon$ -Biotinoyl-L-Lysine                                           |
| DL-AP5(V) disodium salt              | Abcam Biochemicals                                                                                 | ab120271       |                                                                                             |
| DNQX disodium salt                   | Abcam Biochemicals                                                                                 | ab120169       | Alternatively NBQX or CNQX                                                                  |
| Gabazine (SR95531)                   | Abcam Biochemicals                                                                                 | ab120042       | Alternatively bicuculline methiodide                                                        |
| R-Baclofen                           | Abcam Biochemicals                                                                                 | ab120325       |                                                                                             |
| CGP-55,845 hydrochloride             | Tocris                                                                                             | 1248           |                                                                                             |
| Streptavidin 647                     | Invitrogen                                                                                         | S32357         |                                                                                             |
| anti-PV mouse monoclonal antibody    | Swant, Switzerland                                                                                 | 235            | Working concentration 1:5,000-1:10,000                                                      |
| anti-mouse secondary antibody        | Invitrogen                                                                                         | A11030         | If using Venus or GFP rodent using a red-channel ( <i>i.e.</i> 546 nm) is advisable.        |
| Normal Goat Serum                    | Vector Labs                                                                                        | S-1000         |                                                                                             |

|                                    |                                                       |                 |                                             |
|------------------------------------|-------------------------------------------------------|-----------------|---------------------------------------------|
| Microscopy slides                  |                                                       |                 | Any high quality brand                      |
| Glass coverslips                   |                                                       |                 | Usually 22 x 22 mm                          |
| Agar spacers                       |                                                       |                 | Agar block, cut on vibratome to 300 $\mu$ m |
| Laser scanning confocal microscope | Olympus, Japan                                        | Fluoview FV1000 | Or other comparable system                  |
| Fiji (Fiji is just ImageJ)         | <a href="http://fiji.sc/Fiji">http://fiji.sc/Fiji</a> |                 | See Schindelin <i>et al.</i> , 2012         |