

Materials List for

# Mapping the Cellular Distribution of an Optogenetic Protein Using a Light-Stimulation Grid Mapping the Cellular Distribution of an Optogenetic Protein Using a Light-Stimulation Grid

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jove.com/video/65471

## Materials

| Name                                                   | Company                         | Catalog Number | Comments                                    |
|--------------------------------------------------------|---------------------------------|----------------|---------------------------------------------|
| 13 W Amber compact fluorescence bulb - Low Blue Lights | Photonic Developments           |                |                                             |
| 3-Isobutyl-1-methylxanthine (IBMX)                     | Sigma                           | I7018          |                                             |
| 6-line multi-LED Lumencor Spectra X                    | Lumencor                        |                | 6-line multi-LED light engine               |
| Corning - DMEM                                         | Thermo Fischer                  | MT10013CMEA    |                                             |
| Corning - Regular fetal bovine serum                   | Thermo Fischer                  | MT35011CV      |                                             |
| Cover glasses: circles                                 | Thermo Fischer                  | 12545102P      |                                             |
| GBX-2 dark red safelight filter 5.5"                   | Kodak                           | 1416827        | Red safelight lamp                          |
| Hanks' balanced salt solution (HBSS) 10x               | Thermo Fischer                  | 14185052       | Diluted to 1x, adjusted pH                  |
| LDI-7                                                  | 89 North                        |                |                                             |
| L-Glutamine                                            | Thermo Fischer                  | BW17605E       |                                             |
| Lipofectamine 3000                                     | Thermo Fischer                  | L3000001       | Transfection kit                            |
| Olympus IX83 motorized two-deck microscope             | Olympus                         |                | Motorized two-deck microscope               |
| Opti-MEM, no phenol red                                | Thermo Fischer                  | 11058021       |                                             |
| ORCA-fusion digital CMOS camera                        | Hamamatsu                       | C14440-20UP    |                                             |
| Penicillin-streptomycin (10,000 U/mL)                  | Thermo Fischer                  | 15140122       |                                             |
| Phosphate buffered solution (1x)                       | Lonza                           | 17516F         |                                             |
| Prior emission filter wheel and filter sets            | Prior Scientific, Inc.          |                | Emission filter wheel                       |
| Prior Proscan XY stage                                 | Prior Scientific, Inc.          |                | XY stage                                    |
| Slidebook 6                                            | Intelligent Imaging Innovations |                | Digital microscopy software                 |
| SysCon software                                        | SysCon Software                 |                | Software provided by the stimulation system |

|                   |                        |  |                                                        |
|-------------------|------------------------|--|--------------------------------------------------------|
| UGA-42 Geo        | Rapp OptoElectronic    |  |                                                        |
| UPlanSApo 100x    | Olympus                |  | 100x/1.4 NA oil objective ( $\infty$ /0.17/<br>FN26.5) |
| ZT458rdc dichroic | Chroma Technology Corp |  | BS, Wavelength (CWL): 498 nm                           |