

Materials List for:

# Visualization of Endosome Dynamics in Living Nerve Terminals with Four-dimensional Fluorescence Imaging

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URL: <https://www.jove.com/video/51477>

DOI: [doi:10.3791/51477](https://doi.org/10.3791/51477)

## Materials

| Name   | Company                        | Catalog Number      | Comments   |
|--|--------------------------------|---------------------|--|
| <b>Equipment</b>   |                                |                     |  |
| SGC5   | Biotium, Hayward, CA           | 70057               | Final conc: 10 mM                                  |
| FM1-43FX   | Invitrogen, Carlsbad, CA       | F35335              | Final conc: 7 mM                                   |
| LysoTracker Red  | Invitrogen, Carlsbad, CA       | L7528               | Final conc: 0.2 mM                                 |
| Reptilian Ringers pH 7.2   |                                |                     |  |
| NaCl   |                                |                     | 145 mM   |
| KCl  |                                |                     | 2.5 mM   |
| CaCl <sub>2</sub>  |                                |                     | 3.6 mM   |
| MgSO <sub>4</sub>  |                                |                     | 1.8 mM   |
| KH <sub>2</sub> PO <sub>4</sub> (Dibasic)                          |                                |                     | 1.0 mM   |
| HEPES  |                                |                     | 5.0 mM   |
| High KCl Reptilian Ringers pH 7.2                                  |                                |                     |  |
| NaCl   |                                |                     | 86 mM  |
| KCl  |                                |                     | 60 mM  |
| CaCl <sub>2</sub>  |                                |                     | 3.6 mM   |
| MgSO <sub>4</sub>  |                                |                     | 1.8 mM   |
| KH <sub>2</sub> PO <sub>4</sub> (Dibasic)                          |                                |                     | 1.0 mM   |
| HEPES  |                                |                     | 5.0 mM   |
| High Sucrose Ringers pH 7.2  |                                |                     |  |
| NaCl   |                                |                     | 145 mM   |
| KCl  |                                |                     | 2.5 mM   |
| CaCl <sub>2</sub>  |                                |                     | 3.6 mM   |
| MgSO <sub>4</sub>  |                                |                     | 1.8 mM   |
| KH <sub>2</sub> PO <sub>4</sub> (Dibasic)                          |                                |                     | 1.0 mM   |
| HEPES  |                                |                     | 5.0 mM   |
| Sucrose  |                                |                     | 0.5 M (17.1 g/50 ml)                               |
| Axioplan 200 inverted microscope                                   | Carl Zeiss, Thornwood, NY      |                     | <a href="http://www.zeiss.com">www.zeiss.com</a>   |
| N-Achroplan 63X water objective; n.a.=0.9; Working distance=2.4 mm | Carl Zeiss, Thornwood, NY      |                     | <a href="http://www.zeiss.com">www.zeiss.com</a>   |
| DG4 combination light source/excitation filterwheel switcher       | Sutter Instruments, Novato, CA | 175W Xenon arc lamp | <a href="http://www.sutter.com">www.sutter.com</a> |
| Lambda 10-2 emission filterwheel switcher                          | Sutter Instruments, Novato, CA |                     | <a href="http://www.sutter.com">www.sutter.com</a> |

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|---|---|--|--|
| Sensicam CCD camera   | Cooke Instruments, Tonawanda, NY            |  | <a href="http://www.cookecorp.com">www.cookecorp.com</a>                     |
| Cascade 512 CCD camera  | Photometrics, Tucson, AZ                    |  | <a href="http://www.photometrics.com">www.photometrics.com</a>               |
| Imaging dishes- made in-house-11 cm dia.; 25 mm dia. #1 coverslip embedded; magnetic pins |   |  |  |
| <b>Software</b>   |   |  |  |
| Slidebook 5.0   | Intelligent Imaging Innovations, Denver, CO | Deconvolution; Drift correction; 3D and 4D data presentation | <a href="http://www.intelligent-imaging.com">www.intelligent-imaging.com</a> |
| IMARIS 7.5.2  | Bitplane, South Windsor, CT                 | Drift correction; 3D and 4D data presentation                | <a href="http://www.bitplane.com">www.bitplane.com</a>                       |
| AfterEffects CS6  | Adobe, San Jose, CA                         | Drift correction   | <a href="http://www.adobe.com">www.adobe.com</a>                             |
| ImageJ 1.46   | National Institutes of Health, Bethesda, MD | Multiple plugins available; Stereo pair construction         | <a href="http://rsbweb.nih.gov/ij">http://rsbweb.nih.gov/ij</a>              |
| Zeiss LSM   | Carl Zeiss, Thornwood, NY                   | Stereo pair construction                                     | <a href="http://www.zeiss.com">www.zeiss.com</a>                             |