

Materials List for

Imaging and Analysis of Neurofilament Transport in Excised Mouse Tibial Nerve

Nicholas P. Boyer¹, Maite Azcorra^{1,2}, Peter Jung^{3,4}, Anthony Brown¹

¹Department of Neuroscience, The Ohio State University ²Present address: Interdepartmental Neuroscience Graduate Program and Department of Neurobiology, Northwestern University ³Quantitative Biology Institute, Ohio University ⁴Department of Physics and Astronomy, Ohio University

Corresponding Author

Anthony Brown
brown.2302@osu.edu

Citation

Boyer, N.P., Azcorra, M., Jung, P., Brown, A. Imaging and Analysis of Neurofilament Transport in Excised Mouse Tibial Nerve. *J. Vis. Exp.* (), e61264, doi:10.3791/61264 (2020).

Date Published

August 31, 2020

DOI

10.3791/61264

URL

jove.com/video/61264

Materials

| Name | Company | Catalog Number | Comments |
|---|------------------------------------|----------------|---|
| 14 x 22 Rectangle Gasket 0.1mm | Bioptechs | 1907-1422-100 | inner gasket |
| 2-deoxy-D-glucose | Sigma | D6134 | |
| 30mm Round Gasket w/ Holes | Bioptechs | 1907-08-750 | outer gasket |
| 35 x 10mm dish | Thermo Fisher | 153066 | dissection dishes |
| 40mm round coverslips | Bioptechs | 40-1313-0319 | |
| 60mL syringe - Luer-lock tip | BD | 309653 | |
| Andor Revolution WD spinning-disk confocal system | Andor | | outfitted with Perfect Focus and FRAPPA systems |
| Calcium chloride | Fisher | C79 | |
| Coverslips | Fisher | 12-541-B | for fluorescein slide |
| D-(+)-glucose solution | Sigma | G8769 | |
| Dissecting pins | Fine Science Tools | 26001-70 | |
| Dissection forceps | Fine Science Tools | 11251-30 | fine tipped forceps |
| Dissection microscope | Zeiss | 47 50 03 | |
| Dissection pan with wax | Ginsberg Scientific | 568859 | |
| Dissection scissors | Fine Science Tools | 14061-09 | initial dissection scissors |
| FCS2 perfusion chamber | Bioptechs | 060319-2-03 | |
| Fluorescein sodium | Fluka | 46960 | |
| Inline solution heater | Warner Instruments | SH27-B | |
| Laminectomy forceps | Fine Science Tools | 11223-20 | initial dissection forceps |
| Magnesium sulfate | Sigma-Aldrich | M7506 | |
| Microaqueduct slide | Bioptechs | 130119-5 | |
| Microscope slides | Fisher | 12-544-3 | for fluorescein slide |
| Microscope stage insert | Applied Scientific Instrumentation | I-3017 | |
| Objective heater system | Okolab | | Oko Touch with objective collar |
| Objective oil - type A | Nikon | discontinued | |
| Plan Apo VC 100x 1.40 NA objective | Nikon | MRD01901 | |

| | | | |
|-------------------------|--------------------|-----------|--------------------------------|
| Potassium chloride | Fisher | P217 | |
| Potassium phosphate | Sigma-Aldrich | P0662 | |
| Sodium bicarbonate | Sigma-Aldrich | S6297 | |
| Sodium chloride | Sigma-Aldrich | S7653 | |
| Sodium iodoacetate | Sigma-Aldrich | I2512 | |
| Syringe pump | Sage Instruments | Model 355 | |
| Tubing adapter - female | Small Parts Inc. | 1005109 | |
| Tubing adapter - male | Small Parts Inc. | 1005012 | |
| Tygon tubing | Bioptechs | | 1/16" ID, 1/32" wall thickness |
| Vannas spring scissors | Fine Science Tools | 15018-10 | fine scissors |