

Expanding the Toolkit for *In Vivo* Imaging of Axonal Transport

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jove.com/video/63471

Materials

Name	Company	Catalog Number	Comments
0.2 mL PCR tube			
70% (v/v) ethanol in distilled water			
AlexaFlour555 C2 maleimide	ThermoFisher Scientific	A-20346	Can also use AlexaFlour-488 or -647 Maleimide
B6.Cg-Gt(ROSA)26Sor ^{tm9(CAG-tdTomato)Hze} /J	Jackson Laboratory	7909	Rosa26.tdTomato mice
B6.Cg-Tg(Hlxb9-GFP)1Tmj/J mice	Jackson Laboratory	5029	HB9.GFP mice
B6.Cg-Tg(Thy1-CFP/COX8A)S2Lich/J mice	Jackson Laboratory	7967	Mito.CFP mice
B6;129S6-Chat ^{tm2(cre)Low} /J mice	Jackson Laboratory	6410	ChAT.Cre mice
Computer with microscope control and image acquisition software	Zeiss	Zen	
Cotton swab			
Desktop centrifuge			
Dissecting microscope			
Eye lubricant			
Fine curved forceps	Dumont		
Fine straight forceps	Dumont		
Glass coverslip (22 x 64 mm, thickness no. 1)			
Graduated, glass micropipette with microliter markings and plunger	Drummond Scientific	5-000-1001-X10	
Hair clippers			
Hamilton microliter syringe (701 N, volume 10 µL, needle size 26 s G, bevel tip, needle L 51 mm)	Merck	20779	
HcT-441	N/A	N/A	See Restani et al., 2012 for more details
Heating pad			

Immersion oil for fluorescent imaging at 37 °C			
Inverted confocal microscope with environmental chamber	Zeiss	LSM 780	Most inverted confocals should be adaptable
Isoflurane			
Isoflurane vaporizer/anesthesia machine with induction chamber and mask stabilizer			
Magic tape			invisible tape
Micropipette puller			
Parafilm	Parafilm		
Phosphate-buffered saline (PBS): 137 mM NaCl, 10 mM Na ₂ HPO ₄ , 2.7 mM KCl, 1.8 mM KH ₂ PO ₄ -HCl, pH 7.4			
Recombinant human brain-derived neurotrophic factor (BDNF)	Peprtech	450-02	BDNF that can be co-injected with HcT-555
Saline			
Scalpel blade	Dumont		
Small spring scissors	Dumont		
Surgery/operating microscope			
Surgical drape			
Surgical suture			
Surgical tape			
Tg(Chat-EGFP) GH293Gsat/Mmucd mice	MMRRC	000296-UCD	ChAT.eGFP
Vortex mixer			