

Materials List for:**Dissection and Culture of Commissural Neurons from Embryonic Spinal Cord**Sébastien D. Langlois^{*1,2}, Steves Morin^{*1}, Patricia T. Yam^{1,3,4}, Frédéric Charron^{1,2,5,6,7}¹Molecular Biology of Neural Development, Institut de Recherches Cliniques de Montréal²Division of Experimental Medicine and Program in Neuroengineering, McGill University³Program in Neuroengineering, McGill University⁴Montreal Neurological Institute⁵Department of Anatomy and Cell Biology, McGill University⁶Department of Biology, McGill University⁷Department of Medicine, Université de Montréal - University of Montreal^{*}These authors contributed equallyCorrespondence to: Frédéric Charron at frédéric.charron@ircm.qc.caURL: <https://www.jove.com/video/1773>

DOI: doi:10.3791/1773

Materials

Name	Company	Catalog Number	Comments
Neurobasal medium, liquid	Invitrogen	21103-049	See Recipes and Comments
B27 supplement 50X	Invitrogen	17504	See Recipes and Comments
Poly-L-lysine 0.01% solution	Sigma-Aldrich	P4707	
L-15 medium, powder	Invitrogen	41300-070	
Trypsin 2.5% (10X)	Invitrogen	15090-046	
DNAse I, 25000 U/mL	Worthington Biochemical		
MgSO ₄	Sigma-Aldrich	M2643	
HBSS, Ca ²⁺ /Mg ²⁺ -free	Invitrogen	14170-112	
L-glutamine 200mM, liquid	Invitrogen	25030-081	See Recipes and Comments

Dissection of embryonic rat dorsal spinal cord (see also Table I)

- E13 pregnancy-staged rat
- Ethanol 70%
- Surgical scissors, Fine Science Tools
- Forceps, Dumont #5, Fine Science Tools
- Petri dishes
- L-15 medium
- Dissection microscope, Leica
- Plastic transfer pipettes
- Microscissors, Fine Science Tools
- Tungsten needles and pin holders (one hook-shaped needle, one L-shape needle, one straight needle), Fine Science Tools
- Heat-inactivated Horse Serum (HiHS)
- 15 ml plastic tubes

Commissural neuron culture (see also Table I)

- Tissue culture incubators (37°C, 5% CO₂, humidity controlled)
- German Desag glass coverslips and/or plastic tissue culture dishes
- Poly-L-lysine, Sigma
- Sterile milliQ H₂O
- Neurobasal, Invitrogen
- Heat-inactivated Fetal Bovine Serum (HiFBS)
- L-Glutamine
- B27, Invitrogen
- Penicillin/Streptomycin antibiotics
- 37°C waterbath
- Sterile Pasteur Pipettes
- Bunsen gas burner
- HBSS, Ca²⁺/Mg²⁺-free, Invitrogen
- DNAse, Worthington

- MgSO₄
- Centrifuge
- Hemacytometer
- Trypan Blue Solution