

Materials List for:

Acute and Chronic Models of Hyperglycemia in Zebrafish: A Method to Assess the Impact of Hyperglycemia on Neurogenesis and the Biodistribution of Radiolabeled Molecules

Anne-Claire Dorsemans¹, Christian Lefebvre d'Hellencourt¹, Imade Ait-Arsa², Emmanuelle Jestin^{1,2}, Olivier Meilhac^{1,3}, Nicolas Diotel¹

¹UMR 1188 Diabète athérombose Thérapie Réunion Océan Indien (DéTROl), Saint-Denis de La Réunion, France, Université de La Réunion, INSERM

²RIPA (Radiochimie et Imagerie du Petit Animal), Cyclotron de la Réunion Océan Indien CYROI

³CHU de La Réunion

Correspondence to: Nicolas Diotel at nicolas.diotel@univ-reunion.fr

URL: <https://www.jove.com/video/55203>

DOI: [doi:10.3791/55203](https://doi.org/10.3791/55203)

Materials

Name	Company	Catalog Number	Comments
1mL Luer-Lok Syringe	BD, USA	309628	
4',6'-diamidino-2-phenylindole (DAPI)	Sigma-Aldrich, Germany	D8417	
7 mL bijou container plain lab	Dutscher, France	080171	
D-glucose	Sigma-Aldrich, Germany	67021	
Digital camera	Life Sciences, Japan	Hamamatsu ORCA-ER	
Disposable base molds	Simport, Canada	M475-2	
Donkey anti-rabbit Alexa fluor 488	Life Technologies, USA	A21206	
Embedding center	Thermo Scientific, USA	Shandon Histocentre 3	
Fluorescence microscope	Nikon, Japan	Eclipse 80i	
Fluorodeoxyglucose (¹⁸ F-FDG)	Cyclotron, France		
Glucometer test strip	LifeScan, France	One-Touch 143 Ultra	
Goat anti-mouse Alexa fluor 594	Life Technologies, USA	A11005	
<i>In-Vivo</i> Imaging System	TriFoil Imaging, Canada	Triumph Trimodality	
Microtome	Thermo Scientific, USA	Microm HM 355 S	
Monoclonal mouse anti-PCNA	DAKO, USA	clone PC10	
Paraformaldehyde (PFA)	Sigma-Aldrich, Germany	P6148-500G	
Polyclonal rabbit anti-GFAP	DAKO, USA	Z033429	
Slide drying bench	Electrothermal, USA	MH6616	
Sodium chloride	Sigma-Aldrich, Germany	S9888	
Sodium citrate trisodium salt dehydrate	Prolabo, France	27833.294	
Sterile needle	BD Microlance 3	30 G 1/2 ; 0.3 mm× 13 mm	
Student Dumont #5 Forceps	Fine Science Tools	91150-20	
Student surgical scissors	Fine Science Tools	91400-14	
Superfros Plus Gold Slides	Thermo Scientific, USA	FT4981GLPLUS	
Surgical microscope	Leica, France	M320-F12	
Tissue embedding cassettes	Simport, Canada	M490-10	
Tissue embedding medium	LeicaBiosystems, USA	39602004	
Toluene	Sigma-Aldrich, Germany	244511	
Tricaine MS-222	Sigma-Aldrich, Germany	A5040	
Triton X100	Sigma-Aldrich, Germany	X100-500 mL	

Vectashield medium	Vector Laboratories, USA	H-1000	
Xylene	Sigma-Aldrich, Germany	534056	
Fish Strain	AB		
Saline phosphate buffer (10X PBS) pH 7.4 (for 1 liter)			For preparing 10X PBS, add the following salts and complete to 1 liter with distilled water
<i>Potassium chloride (MM : 74.55 g/mol): 2.00 g</i>	<i>Sigma-Aldrich, Germany</i>	<i>746436</i>	
<i>Potassium phosphate monobasic (MM: 136,09 g/mol): 2.40g</i>	<i>Sigma-Aldrich, Germany</i>	<i>795488</i>	
<i>Sodium chloride (MM : 58.44 g/mol): 80.00 g</i>	<i>Sigma-Aldrich, Germany</i>	<i>S9888</i>	
<i>Sodium phosphate dibasic (MM: 141,96 g): 14,40 g</i>	<i>Sigma-Aldrich, Germany</i>	<i>795410</i>	