

Analysis of Fluorescent-Stained Lipid Droplets with 3D Reconstruction for Hepatic Steatosis Assessment

Karina Garcia^{1,2,3,4}, André Alves^{1,2,3}, Teresa M. Ribeiro-Rodrigues^{1,2,3}, Flávio Reis^{1,2,3}, Sofia Viana^{1,2,3,4}

¹Institute of Pharmacology & Experimental Therapeutics & Coimbra Institute for Clinical and Biomedical Research (iCBR), Faculty of Medicine, University of Coimbra ²Center for Innovative Biomedicine and Biotechnology (CIBB), University of Coimbra ³Clinical Academic Center of Coimbra (CACC)

⁴Polytechnic Institute of Coimbra, Coimbra Health School

Corresponding Author

Sofia Viana

sofia.viana@uc.pt

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Materials

Name	Company	Catalog Number	Comments
1.6 mm I.D. silicone tubing, I.V mini drip set	Fisher Scientific		
4,4-difluoro-1,3,5,7,8-pentametil-4-bora-3a,4a-diaza-s-indaceno (BODIPY 493/503)	Sigma-Aldrich, Lyon, France	D3922	
4',6-diamidino-2-phenylindole (DAPI)	Molecular Probes Inc, Invitrogen, Eugene, OR	D1306	
70% ethanol	Honeywell	10191455	
Adobe Illustrator CC	Adobe Inc.	Used to design the figures	
Automatic analyzer Hitachi 717	Roche Diagnostics Inc., Mannheim, Germany	8177-30-0010	
Barrier pen (Liquid blocker super pap pen)	Daido Sangyo Co., Ltd, Japon	–	
Blade	Leica	221052145	Used in the cryostat
Cell Profiler version 4.2.5	https://cellprofiler.org/releases/	Used to analyse the acquired images	
Coverslips	Menzel-Glaser, Germany	–	
Cryomolds	Tissue-Tek	–	
Cryostat (including specimen disc and heat extractor) CM3050 S	Leica Biosystems	–	
Dimethyl Sulfoxide (DMSO)	Sigma-Aldrich, Lyon, France	D-8418	Used to dissolve Bodipy for the 5 mg/mL stock solution. CAUTION: Toxic and flammable. Vapors may cause irritation. Manipulate in a fume hood. Avoid direct contact with skin. Wear rubber gloves, protective eye goggles.
Dry ice container (styrofoam cooler)	Novolab	A26742	
Dumont forceps	Fine Science Tools, Germany	11295-10	
Glass Petri dish (H 25 mm, ø 150 mm)	Thermo Scientific	150318	Used to weigh the liver after dissection
Glycergel	DAKO Omnis	S303023	

GraphPad Prism software, version 9.3.1	GraphPad Software, Inc., La Jolla, CA, USA		
High-fat diet	Envigo, Barcelona, Spain	MD.08811	
Ketamine (Nimatek 100 mg/mL)	Dechra	791/01/14DFVPT	Used at a final concentration of 75 mg/kg
Laser scanning confocal microscope (QUASAR detection unit;)	Carl Zeiss, germany	LSM 710 Axio Observer Z1 microscope	
Medetomidine (Sedator 1 mg/mL)	Dechra	1838 ESP / 020/01/07RFVPT	Used at a final concentration of 1 mg/kg
Needle	BD microlance	300635	
No 15 Sterile carbon steel scalpel Blade	Swann-Morton	205	
Objectives 10x (Plan-Neofluar 10x/0.3), 20x (Plan-Apochromat 20x/0.8) and 40x (Plan-Neofluar 40x/1.30 Oil)	Carl Zeiss, Germany		
Paint brushes	Van Bleiswijk Amazon B07W7KJQ2X	Used to handle cryosections	
Peristaltic pump (Minipuls 3)	Gilson	1004170	
Phosphate-buffered saline (PBS, pH ~ 7.4)	Sigma-Aldrich, Lyon, France	P3813	
Scalpel handle, 125 mm (5"), No. 3	Swann-Morton	0208	
Slide staining system StainTray	Simport Scientific	M920	
Standard diet	Mucedola	4RF21	
Superfrost Plus microscope slides	Menzel-Glaser, Germany	J1800AMNZ	
Tissue-Tek OCT mounting media	VWR CHEMICALS	361603E	
Triglycerides colorimetric assay kit	Cayman Chemical	10010303	
Ultrasonic bath	Bandelin Sonorex	TK 52	
Vannas spring scissors - 3 mm cutting edge	Fine Science Tools, Germany	15000-00	
ZEN Black software	Zeiss		