

Materials List for

A Dorsal Skinfold Window Chamber Tumor Mouse Model for Combined Intravital Microscopy and Magnetic Resonance Imaging in Translational Cancer Research

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Materials

Name	Company	Catalog Number	Comments
Cell Culture Materials			
BxPC-3 Human Pancreatic Cancer Cells	ATCC (American Type Culture Collection)	CRL-1687	
Corning Matrigel Basement Membrane Matrix, LDEV-free, 10 mL	Corning	354234	
Corning Stripettor Ultra Pipet Controller	Corning	07-202-350	
Dulbecco Phosphphate buffered saline without Calcium, Magnesium, or phenol red, 500 mL	Gibco	14190144	
Fetal Bovine Serum (Canada), 500 mL	Sigma-Aldrich	F1051-500ML	
Penicillin-Streptomycin 100x (liquid, stabilized, sterile-filtered, cell culture tested)	Sigma-Aldrich	P4333-100ML	
RPMI Medium 1640 (1x), liquid; with L-Glutamine, 500 mL	Gibco	11875093	
TrypLE Express Enzyme, 500 mL	Gibco	12605028	
Window Chamber Materials			
12 mm Glass Coverslip	Harvard Apparatus	CS-12R No. 1.5	
Connex 500 3D Printer	Stratasys	N/A	
Biocompatible clear MED610 resin	Stratasys	RGD810	
Loctite AA 3105 UV curable glue	Loctite	LCT1214249	
Window chamber back frame	Trimech Inc	N/A	
Window chamber fiducial marker	Trimech Inc	N/A	

Window Chamber front frame	Trimech Inc	N/A	
Window chamber support clip	Trimech Inc	N/A	
Inoculation and Surgery Materials			
BD SafetyGlide Insulin Syringes with Permanently Attached Needles, 0.5 mL, 29 G x 1/2"	BD	CABD305932	
Betadine Solution	Betadine	AP-B002C2R98U	
Cidex OPA 14 Day Solution 3.8 L	ASP	JOH20394	
Disposable Surgical Underpads 23 inch x 24 inch	Kendall	7134	
Eye lubricant	Optixcare	50-218-8442	
Hair removal cream	Nair	061700222611	
Halstead Hemostatic Forceps	Almedic	7742-A12-150	
Heating pad	Sunbeam	B086MCN59R	
Iris Scissors	Almedic	7601-A8-690	
Isoflurane	Sigma	792632	
Metacam	Boehringer Ingelheim Animal Health USA Inc	NDC 0010-6015-03	
NOD.Cg-Rag1tm1Mom Il2rgtm1Wjl/ SzJ mouse	the Jackson laboratory	7799	
Peanut Clipper & Trimmer	Wahl	8655-200	
SOFSILK Nonabsorbable Surgical Suture #5-0 with 3/8" Taper point needle (17 mm) (Wax Coated,Braided Black Silk, Sterile)	Syneture	VS880	
Splinter Forceps	Almedic	7725-A10-634	
MR Imaging			
3D printed window chamber immobilization device.			custom 3D printed, refer to figure 3 for details.
Convection heating device	3M Bair Hugger	70200791401	
Drug injection system	Harvard Apparatus	PY2 70-2131	PHD 22/2200 MRI compatible Syringe Pump
Gadovist 1.0	Bayer	2241089	
Respiratory monitoring system	SAll	Model 1030	MR-compatible monitoring and gating system for small animals.
Tail vein catheter (27 G 0.5")	Terumo Medical Corp	15253	
Optical Imaging			
3D printed imaging stage			Custom 3D printed, refer to supplementary figure 3 for details.
12 V 7 W Flexible Polyimide Heater Plate Thin Adhesive PI Heating Film 25 mm x 50 mm	BANRIA	B09X16XCVS	Heating element used for mouse body temperature regulation.
DC power supply	BK Precision	1761	Used to power the heating element.
Leica MZ FLIII	Leica Microsystems	15209	
svOCT imaging system			In-house made imaging system. Details can be found in reference 23.
Software			
MATLAB Software	MathWorks	R2020A	