

Magnetic Resonance-Guided High Intensity Focused Ultrasound Generated Hyperthermia: A Feasible Treatment Method in a Murine Rhabdomyosarcoma Model

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Materials

Name	Company	Catalog Number	Comments
1.5mL Eppendorf tubes	Eppendorf	22363204	
1kb plus DNA Ladder	Froggabio	DM015-R500	
2x HS-Red Taq (PCR mix)	Wisent	801-200-MM	
7 Tesla MRI BioSpec	Bruker	T184931	70/30 BioSpec, Bruker, Ettlingen, Germany
C1000 Thermal cycler	Biorad	1851148	
Clippers	Whal Peanut	8655	
Compressed ultrasound gel	Aquaflex	HF54-004	
Convection heating device	3M Bair Hugger	70200791401	
Depilatory cream	Nair	61700222611	Shopper's Drug Mart
DMEM	Wisent	219-065-LK	
DNeasy extraction kit	Qiagen	69504	
DPBS	Wisent	311-420-CL	
Drug injection system	Harvard Apparatus	PY2 70-2131	PHD 22/2200 MRI compatible Syringe Pump
Eye lubricant	Optixcare	50-218-8442	
F10 Media	Wisent	318-050-CL	
FBS	Wisent	081-105	
Froggarose	FroggaBio	A87	

Gel Molecular Imager	BioRad	GelDocXR	
Glutamax	Wisent	609-065-EL	
Heat Lamp	Morganville Scientific	HL0100	Similar to this product
Intravascular Polyethylene tubing (0.015" ID x 0.043" OD, 20G)	SAI infusion	PE-20-100	
Isoflurane	Sigma	792632	
M25FV24C Cell line	Gladdy Lab	N/A	
Microliter Syringe	Hamilton	01-01-7648	
Molecular Imager Gel Doc XR	Biorad	170-8170	
Mouse holder	The 3D printing material used was ABS-M30i, and it was printed on FDM Fortus 380mc machine	N/A	Dimensions: length = 43 mm, outer radius = 15 mm, inner width (where the mouse would sit) = 20.7 mm.
MyRun Machine	Cosmo Bio Co Ltd	CBJ-IMR-001-EX	
Nanodrop 8000 Spectrophotometer	Thermo Scientific	ND-8000-GL	
p53 primers	Eurofins	N/A	Custom Primers
PCR tubes	Diamed	SSI3131-06	
Penicillin/Streptomycin	Wisent	450-200-EL	
Proteus software	Pichardo lab	N/A	
Respiratory monitoring system	SAIL	Model 1030	MR-compatible monitoring and gating system for small animals
Small Bore HIFU device, LabFUS	Image Guided Therapy	N/A	LabFUS, Image Guided Therapy, Pessac, France Number of elements 8 frequency 2.5 MHz diameter 25 mm radius of curvature 20 mm Focal spot size 0.6 mm x 0.6 mm x 2.0 mm Motor: axes 2 Generator: Number of channels 8 Maximum electrical power/channel Wel 4 Maximum electrical power Wel 32 Bandwidth 0.5 - 5 MHz Control per channel: Freq., Phase and. amplitude Measurements per channel: Vrms, Irms, cos(theta) Duty Cycle at 100% power % 100% for 1 min. Transducer: Number of elements 8 frequency 2.5 MHz diameter 25 mm radius of curvature 20 mm Focal spot size 0.6 mm x 0.6 mm x 2.0 mm
SYBR Safe	ThermoFisher Scientific	S33102	
TAE	Wisent	811-540-FL	
Tail vein catheter (27G 0.5")	Terumo Medical Corp	15253	
Thermal probes	Rugged Monitoring	L201-08	
Trypan blue	ThermoFisher Scientific	15250061	
Trypsin	Wisent	325-052-EL	
Ultrasound Gel	Aquasonic	PLI 01-08	