

An In vitro System to Gauge the Thrombolytic Efficacy of Histotripsy and a Lytic Drug

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Materials

Name	Company	Catalog Number	Comments
Absorbing sheets	Precision acoustics	F28-SMALL-M	300mm x 300 mm x 10 mm
Borosilicate Pasteur pipettes	Fisher Scientific	1367820A	14.6 cm length, 2 mL capacity
Centrifuge tubes	Eppendorf	22364111	1.5 mL capacity
Drabkin's assay	Sigma Aldrich	D5941-6VL	
Draw syringe	Cole-Parmer	EW-07945-43	60 mL capacity
Filter bags	McMaster-Carr	5162K111	Remove particle size upto 1 microns
Flow channel tubing	McMaster-Carr	5154K25	Polyethylene-lined EVA plastic tubing (Outer diameter: 3/8", Inner diameter: 1/4")
Heating elements	Won Brothers	HT 300 Titanium	Titanium rods placed at the bottom of tank
Imaging array	Verasonics	L11-5v	128 element with sensitivity from -55 to -49 dB
Low gelling agarose	Millipore Sigma	A9414	
Model vessel	McMaster-Carr	5234K98	6.6 cm length, 0.6 cm inner diameter, 1 mm thickness
Nanopure water	Barnstead	Nanopure Diamond	ASTM type I, 18 Mohm-cm resistivity
Plasma	Vitalant	4PF000	Plasma frozen within 24 hours
Plate reader	Biotek	Synergy Neo HST Plate Reader	For haemoglobin quantification
Probe cover	Civco	610-362	
Programming platform	MATLAB (the Mathworks, Natick, MA, USA)		
Recombinant tissue-type plasminogen activator (rt-PA)	Genentech	Activase	
Reservoir	Cole-Parmer	EW-07945-43	60 mL capacity
Syringe pump	Cole-Parmer	EW-74900-20	pump attached to the syringe to draw the flow in the flow channel at a pre-determined fixed rate
Transducer	In-house customized		Eight-element, elliptically-focused transducer (9 cm major axis, 7 cm minor axis and 6 cm focal length), powered by custom designed and

			built class D amplifier and matching network
Ultrasound scanning system	Verasonics		Vantage Research Ultrasound System
Water tank	Advanced acrylics	C133	14 x 14 x 12, 1/2"