

Materials List for:

Functional Neuroimaging Using Ultrasonic Blood-brain Barrier Disruption and Manganese-enhanced MRI

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Materials

Name	Company	Catalog Number	Comments
Hydrophone	Sonora Medical Systems, Longmont, CA	SN S4-251	
Translation stage	Newport Corporation, Irvine, CA		
Ultrasound transducer	Olympus NDT, Inc., Waltham MA	A306S-SU	Review the manufacturer's test sheet that accompanies the transducer to find the exact center frequency of that particular transducer, which may differ from the nominal frequency listed in the catalog. (e.g., the nominal frequency of our transducer was 2.25 MHz, but the actual center frequency was 2.15 MHz.)
Vevo Imaging Station	VisualSonics, Inc. Toronto, Canada		
50 dB power amplifier	E&I, Rochester, NY	model 240L	
Signal generator	Agilent Technologies, Santa Clara, CA	model 33220A	
MnCl ₂ ·(H ₂ O) ₄	Sigma		Molecular weight varies by batch, call manufacturer for exact measurement
Perflutren lipid microspheres	Lantheus Medical Imaging, N. Billerica, MA	DEFINITY	
Microsphere agitator	Lantheus Medical Imaging, N. Billerica, MA	VIALMIX	
MR imaging coil	m2m Imaging Corp., Hillcrest, OH		35 mm diameter quadrature transmit/receive volume coil
MRI system	GE Healthcare, Milwaukee, WI		GE EXCITE console operating a 7-T horizontal bore magnet
Image analysis environment	Visage Imaging, San Diego, CA, MathWorks, Natick MA	Amira MATLAB	