

Materials List for

A Magnetic Nanoparticle-Based Immunoassay Using a Microfluidic Device

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URL: <https://www.jove.com/video/22135>

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Materials

Name	Company	Catalog Number	Comments
Carbonyl-iron microparticles	Sigma-Aldrich	44890	7 µm
Chloroform	Fermont	6201	Health Hazard: Moderate Flammability: None Reactivity: None Contact Hazard: Moderate
CMOS camera Moment	Teledyne Photometrics		Sensor Technology: CMOS Quantum Efficiency: 73% Pixel Size: 4.5 µm x 4.5 µm Supported Interfaces: USB 3.2 Gen 2
Dr Engrave Software	Roland DGA Corporation		Engraving software to design and create the engraving path on the surface
Extraction hood	Unknown	Unknown	
Flexible Plastic Tubing	Tygon	AAD04103	ID = 0.020, OD = 0.060
Fluorescence microscope	ZEISS	Axio Vert.A1	
High Precision Dispense Needle	Loctite	98612	
MagJET Separation Rack	thermoscientific		12 x 1.5 mL
Polymethylmethacrylate - Sheet - PMMA, Acrylic	Goodfellow	ME303018/1	Thickness: 1.3 mm, Transparency: Clear/Transparent
PVCamTest software	Teledyne Photometrics	Version 3.10.107	Image acquisition software
Stereo microscope	Nikon	SMZ 7457	
SuperMag Carboxyl Beads	Ocean NanoTech	KSC0100	100 nm
Syringe pump	kd Scientific	KDS200	Can hold up to two syringes
Ultrasonic bath	Branson	2800	
VPanel software	Windows OS	Version 1.0.3.0	Software for controlling the micromilling machine