

Materials List for:

# Microfluidic Buffer Exchange for Interference-free Micro/Nanoparticle Cell Engineering

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## Materials

Name	Company	Catalog Number	Comments
<b>Cell lines &amp; Media</b>			
Mesenchymal Stem Cells (MSCs)	Lonza	PT-2501	
Dulbecco's modified Eagle's medium (DMEM)	Lonza	12-614F	
Fetal Bovine Serum (FBS)	Gibco	10270-106	
THP-1 monocyte cells (THP-1)	ATCC	TIB-202	
Roswell Park Memorial Institute (RPMI) 1640 media	Lonza	12-702F	
<b>Reagents &amp; Materials</b>			
0.01% poly-L-lysine (PLL)	Sigma-Aldrich	P8920	
3 ml Syringe	BD	302113	Syringe 3 ml Luer-Lock
60 ml Syringe	BD	309653	Syringe 60 ml Luer-Lock
Bovine Serum Albumin (BSA)	Biowest	P6154-100GR	
Calcein, AM (CAM)	Life Technologies	C1430	
Calcein	Sigma-Aldrich	C0875	
Isopropanol	Fisher Chemical	#P/7507/17	HPLC Grade 2.5 L
Phosphate-Buffered Saline (PBS)	Lonza	17-516Q/12	
Plain Microscope Slides	Fisher Scientific	FIS#12-550D	75 x 25 x 1 mm <sup>3</sup>
Polydimethylsiloxane (PDMS)	Dow Corning	SYLGARD® 184	
Scotch tape	3M	21200702044	18 mm x 25 m
Silica NPs (#200 µm)	Sigma-Aldrich	748161	Pore size 4 nm
Syringe Tip	JEC Technology	7018302	23 G 0.013 x 0.25
Trypsin-EDTA (0.25%)	Life Technologies	25200-056	
Tygon Tubing	Spectra-Teknik	06419-01	0.02 x 0.06" 100
Poly (D,L-lactide-co-glycolide) (PLGA; 50:50)	Sigma-Aldrich	P2191	
<b>Equipment</b>			
Biopsy punch	Harris Uni-Core	69036-15	1.50 mm
Dessicator	Scienceware	111/4 IN OD	
High-speed Camera	Phantom	V9.1	
Inverted phase-contrast microscope	Nikon	Eclipse Ti	
Plasma cleaner	Harrick Plasma	PDC-002	

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Syringe Pump	Chemyx	CX Fusion 200	
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