

Materials List for:

# Polydimethylsiloxane-polycarbonate Microfluidic Devices for Cell Migration Studies Under Perpendicular Chemical and Oxygen Gradients

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URL: <https://www.jove.com/video/55292>

DOI: [doi:10.3791/55292](https://doi.org/10.3791/55292)

## Materials

Name	Company	Catalog Number	Comments
1 ml Syringe	Becton-Dickinson, Franklin Lakes, NJ	302104	
1.5 ml Microcentrifuge Tube	Smartgene	6011-000	
10 ml Syringe	Becton-Dickinson, Franklin Lakes, NJ	302151	
15 ml Centrifuge Tube	ThermoFisher Scientific, Waltham, MA	Falcon 352096	
150 mm Petri dish	Dogger Science	DP-43151	
1H,1H,2H,2H-Perfluorooctyltrichlorosilane	Alfa Aesar, Ward Hill, MA	78560-45-9	
3 ml Syringe	Becton-Dickinson, Franklin Lakes, NJ	302118	
4" Silicon Dummy Wafer	Wollemi Technical, Taoyuan, Taiwan		
Acetone	ECHO Chemical, Miaoli, Taiwan	AH3102-000000-72EC	
AG Double Expose Mask Aligner	M&R Nano Technology, Taoyuan, Taiwan	AG500-4D-D-V-S-H	
Antibiotic-Antimycotic solution	ThermoFisher Scientific, Waltham, MA	GIBCO 15240-062	
Biopsy punch	Miltex, Plainsboro, NJ	33-31	
Blunt needle	JensenGlobal, Santa Barbara, CA	Gauge 14	
Bright-Line Hemocytometer	Sigma-Aldrich, St. Louis, MO	Z359629	for cell counting
Buffered Oxide Etch	ECHO Chemical, Miaoli, Taiwan	PH3101-000000-72EC	
Cell Culture Incubator	Caron, Marietta, OH	6016-1	
COMSOL Multiphysics	COMSOL, Burlington, MA	Ver. 4.3b	for numerical simulation of chemical gradients in the device
D-PBS	ThermoFisher Scientific, Waltham, MA	GIBCO 14190-144	
Desiccator	A-VAC Industries, Anaheim, CA	35.10001.01	
DMEM/F12+GlutaMax-1	ThermoFisher Scientific, Waltham, MA	GIBCO 10565-018	
Fetal Bovine Serum	ThermoFisher Scientific, Waltham, MA	GIBCO 10082	
Fibronectin from Human Plasma	Sigma-Aldrich, St. Louis, MO	F2006	
Inverted Fluorescence Microscope	Leica Microsystems, Wetzlar, Germany	DMIL LED	
Isopropyl Alcohol (IPA)	ECHO Chemical, Miaoli, Taiwan	CMOS112-00000-72EC	
JuLi Smart Fluorescence Cell Imager	NanoEnTek, Seoul, Korea	DBJ01B	

Mechanical Convention Oven	ThermoFisher Scientific, Waltham, MA	Lindberg Blue M MO1450C	
NaOH	Showa Chemical Industry, Tokyo, Japan	1943-0150	
Plasma treatment system	Nordson MARCH, Concord CA	PX-250	for oxygen plasma surface treatment
Polycarbonate (PC) film	Quantum Beam Technologies, Tainan Taiwan		
Polydimethylsiloxane (PDMS)	Dow Corning, Midland, MI	SYLGARD 184	
Pyrogallol	Alfa Aesar, Ward Hill, MA	A13405	
Removable Adhesive Putty	3M	860	
Sorvall Legend Mach 1.6R Tabletop Centrifuge	ThermoFisher Scientific, Waltham, MA		
Spin Coater	ELS Technology, Hsinchu, Taiwan	ELS 306MA	
SU-8 2050	MicroChem, Westborough, MA	SU-8 2050	
SU-8 Developer	MicroChem, Westborough, MA	Y020100	
Surgical blade	Feather, Osaka, Japan	5005093	for PDMS cutting
Syringe Pump	Chemyx, Houston, TX	Fusion 400	
T75 Cell Culture Flask	ThermoFisher Scientific, Waltham, MA	Nunc 156367	
Trypan Blue Solution, 0.4%	ThermoFisher Scientific, Waltham, MA	15250061	
Trypsin-EDTA	ThermoFisher Scientific, Waltham, MA	GIBCO 25200	
Tygon PTFE Tubing	Saint-Gobain Performance Plastics, Akron, OH		
Tygon Tubing	Saint-Gobain Performance Plastics, Akron, OH	621	