Materials List for:

Evaluation of Cancer Stem Cell Migration Using Compartmentalizing Microfluidic Devices and Live Cell Imaging

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Materials

Name	Company	Catalog Number	Comments
Dulbecco's modified eagle's medium (DMEM), high glucose	GIBCO, by Life Technologies	11965	Brain tumor stem cell (BTSC) culture supplies
Ham's F12	GIBCO, by Life Technologies	31765	Brain tumor stem cell (BTSC) culture supplies
B27 supplement minus vitamin A	GIBCO, by Life Technologies	12587-010	Brain tumor stem cell (BTSC) culture supplies
Antibiotic-Antimycotic (PSA)	GIBCO, by Life Technologies	15240	Brain tumor stem cell (BTSC) culture supplies
Epidermal Growth Factor (EGF), human recombinant	GIBCO, by Life Technologies	PHG0313	Brain tumor stem cell (BTSC) culture supplies
basic Fibroblast Growth Factor (bFGF) , human recombinant	GIBCO, by Life Technologies	PHG0021	Brain tumor stem cell (BTSC) culture supplies
Heparin sodium salt, from porcine intestinal mucosa	Sigma-Aldrich	H1027-250KU	Brain tumor stem cell (BTSC) culture supplies
Laminin (natural mouse)	GIBCO, by Life Technologies	23017-015	Brain tumor stem cell (BTSC) culture supplies
Accutase	EMD Millipore	SCR005	Brain tumor stem cell (BTSC) culture supplies
Stem cell medium			• 30 % Hams F12 • 70% DMEM • 1% antibiotic-antimycotic • 2% B27 without vitamin A • EGF (20 ng/mL) and bFGF/ heparin (20 ng/mL bFGF, 5 mg/ml heparin) Mix ingredients and sterile filter before use
Basic Fibroblast Growth Factor (bFGF)/ Heparin			• Aliquot concentration 20 µg/ ml • For 25 µg: Add 1.25 mL of 5mg/mL Heparin to 25 µg bFGF. • For 250 µg: Add 1 mL 5mg/ mL Heparin to 250 µg bFGF. Transfer to 15 mL conical and add 11.5 mL 5 mg/mL Heparin to conical.

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			• Store as 50 µl or 250 µl aliquots at -80°C.
Epidermal Growth Factor (EGF)			• Aliquot concentration 20 µg/ml • For 200 µg: Add 1 mL sterile DMEM (Gibco 11965-118) to 200 µg EGF. Transfer to 15 mL conical and add 9 mL DMEM. • For 500 µg: Add 1 mL sterile DMEM (Gibco 11965-118) to 200 µg EGF. Transfer to 50 mL conical and add 24 mL DMEM. • Store as 50 µl or 250 µl aliquots at -80°C.
Heparin			• Aliquot concentration 5 mg/ml • Weigh out 100 mg heparin. • Add 100 mg heparin to 20 mL (70%)DMEM-(30%)F12-(1%)PSA (14 mL DMEM, 6 mL F12, 200 µL PSA) • Sterile filter • Store as 50 µl or 250 µl aliquots at -80°C
su-8 photoresist	MicroChem Corp.		
Silicon handle wafer	WRS Materials	3P01-5SSP-INV	
trichloro(1H,1H,2H,2H-perfluorooctyl)silane	Sigma-Aldrich	448931	
PDMS Sylgard 184	Dow Corning		
laminin	BD Biosciences		50 µg/ml in PBS buffer for the final concentration
Biostation IM	Nikon Instruments		

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