

Materials List for

Quantifying the Brain Metastatic Tumor Micro-Environment using an Organ-On-A Chip 3D Model, Machine Learning, and Confocal Tomography

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Citation

Oliver, C.R., Westerhof, T.M., Castro, M.G., Merajver, S.D. Quantifying the Brain Metastatic Tumor Micro-Environment using an Organ-On-A Chip 3D Model, Machine Learning, and Confocal Tomography. *J. Vis. Exp.* (), e61654, doi:10.3791/61654 (2020).

Date Published

August 16, 2020

DOI

10.3791/61654

URL

jove.com/video/61654

Materials

Name	Company	Catalog Number	Comments
0.25% Trypsin-EDTA with phenol red	Thermo Fisher Scientific	25200056	
1.5 mm biopsy punch with plunger	Integra LifeSciences Corporation	33-31A-P/25	
10x MEM	Thermo Fisher Scientific	11430030	
150 mm petri dishes	Fisher Scientific	FB0875714	
1x DPBS, without Ca and Mg	Thermo Fisher Scientific	14190144	
200uL pipette tip	Fisher Scientific	02-707-411	
4 inch silicon wafer	University Wafer	452	
48 mm wide packing tape	Fisher Scientific	19-072-097	
50 x 75 mm glass slide	Fisher Scientific	12-550C	
A1 confocal microscope	Nikon		
acetone	Fisher Scientific	A9-20	
antibiotic/antimycotic (penicillin/streptomycin/amphotericin)	Gibco	15240062	
box cutter blade	Fisher Scientific	NC1721575	
dissection scissors	Fisher Scientific	08-951-5	
DMEM with 4.5 g/L glucose	Thermo Fisher Scientific	11960-044	
double sided tape	Fisher Scientific	NC0879005	
EGM-2	Lonza	CC-3162	
Fetal Bovine Serum, Heat inactivated	Corning	MT35011CV	
Fiji software	ImageJ		
glass vial	Fisher Scientific	03-341-25D	
glutamax	Thermo Fisher Scientific	35050061	
hCMEC/D3	EMD Millipore	SCC066	
Jupyter notebook	Anaconda		

L-glutamine	Thermo Fisher Scientific	25030081	
Matrigel - growth factor reduced with phenol red	Corning	CB-40230A	
MDA-MB-231	ATCC	HTB-26	
MDA-MB-231-BR-GFP	Dr. Patricia Steeg, NIH		
N-2 growth supplement	Thermo Fisher Scientific	17502048	
normal human astrocytes (NHA)	Lonza	CC-2565	
Orange software	University of Ljubljana		
Pasteur pipette	Fisher Scientific	13-711-9AM	
Photolithography masks	Photosciences Incorporated		
pLL3.7-dsRed	University of Michigan Vector Core		
pLL-EV-GFP	University of Michigan Vector Core		
pLOX-TERT-iresTK	Addgene	12245	
pMD2.G	Addgene	12259	
polycarbonate membrane, 5um pore size	Millipore	TMTP04700	
psPAX2	Addgene	12260	
PureCol, 3 mg/mL	Advanced Biomatrix	5005	Type I bovine collagen
sodium bicarbonate	Thermo Fisher Scientific	25080094	
sodium pyruvate	Thermo Fisher Scientific	11360070	
Solo cup	Fisher Scientific	NC1416545	
SU-8 2075	MicroChem Corporation	Y111074 0500L1GL	
SU8 developer	MicroChem Corporation	Y020100 4000L1PE	
Sylgard 184	Ellsworth Adhesive Company	NC0162601	
Toluene	Sigma-Aldrich	179965-1L	
Trichloro perfluoro octyl silane	Sigma-Aldrich	448931-10G	