

A Biomimetic Model for Liver Cancer to Study Tumor-Stroma Interactions in a 3D Environment with Tunable Bio-Physical Properties

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Materials

Name	Company	Catalog Number	Comments
AlamarBlue (Resazurin sodium salt)	Sigma	211-500	Prepare according to manufacturers recommendations
Antibiotic Antimycotic Solution (100×), Stabilized	Sigma	A5955-100ML	
Aprotinin Protease Inhibitor	Thermo Fisher Scientific	78432	
Calcium chloride (CaCl ₂)	Sigma	C1016-2.5KG	Anhydrous, granular, ≤7.0 mm, ≥93.0%
CO ₂ Incubator	Kebo Biomed Sweden		
Corning Black, clear flat bottom 96-well plate	Sigma	CLS3904-100EA	
Corning HTS Transwell-24 well permeable supports	Sigma	CLS3396-2EA	HTS Transwell-24 units w/ 0.4 μm pore polycarbonate membrane and 6.5 mm inserts, TC-treated, sterile, 2/ cs
Discovery Hybrid Rheometer 2	TA instruments, Sollentuna, Sweden		
DMEM, high glucose, GlutaMAX supplement (LX2 and HepG2 cells)	Thermo Fisher Scientific	61965059	Supplemented with 10% v/v FBS and 1% v/v antibiotic antimycotic solution
Endothelial Cell Growth Medium (500 ml) (HUVEC)	Cell Applications, Inc	211-500	
Fetal Bovine Serum, qualified, One Shot format, New Zealand	Thermo Fisher Scientific	A3160902	
Fibrinogen type I-S from bovine plasma	Sigma	F8630-10G	
FLUOstar Omega plate reader	BMG Labtech		
Hanks' balanced salt solution	Sigma	H9394-500ML	Modified, with sodium bicarbonate, without calcium chloride and magnesium sulfate
Labogene scanspeed 416 centrifuge	Labogene, Sweden		
Laminar flow hood	Kebo Biomed Sweden		

Mettler Toledo AG245 Analytical Balance	Mettler Toledo		
Nikon TMS Light microscope	Nikon, Japan		
Phosphate buffered saline tablet	Sigma	P4417-100TAB	Prepare according to manufacturers recommendation
Rat tail Collagen Type I 5 mg/mL	Ibidi	50201	
Sodium chloride (NaCl)	Sigma	S7653-1KG	
Sodium Hydroxide (NaOH)	Merck	B619298	
TC20 Automated cell counter	BioRad		
TC20 cell counter counting slides	BioRad		
Thrombin from bovine plasma	Sigma	T9549	Powder, suitable for cell culture, $\geq 1,500$ NIH units/mg protein (E1%/280 = 19.5)
Trypsin (2.5%) 10x	Thermo Fisher Scientific		Dilute to 1x in PBS
Trypsin inhibitor from Glycine max (soybean)	Sigma	T6414-100ML	Solution, sterile-filtered