

Materials List for:

Preparation and Analysis of *In Vitro* Three Dimensional Breast Carcinoma Surrogates

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Materials

Name	Company	Catalog Number	Comments
Dulbecco's Modified Eagle Medium 1x (DMEM)	Corning CellGro	10-014-CV	
Fetal Bovine Serum (FBS)	Atlanta Biologicals	S11150	
0.25% Trypsin + 2.21 mM EDTA 1x	Corning	25-053-CI	
Tissue Culture plates, 100 mm	CellTreat Scientific Products	229620	Sterile
Tissue Culture plates, 35 mm	CellTreat Scientific Products	229638	For PDMS foam formation
9" Glass pipette	Fisher	13-678-20D	Sterile
10 ml pipette	CellTreat Scientific Products	229210B	Sterile
1,000 µl pipette tips	FisherBrand	02-717-166	Sterile Filtered
200 µl pipette tips	FisherBrand	02-717-141	Sterile Filtered
10 µl pipette tips	FisherBrand	02-717-158	Sterile Filtered
15 ml conical tubes	CellTreat Scientific Products	229410	Sterile
50 ml conical tubes	CellTreat Scientific Products	229422	Sterile
1.5 ml microcentrifuge tubes	FisherBrand	05-408-129	Sterile
Trypan blue	Corning Cellgro	25-900-CI	Sterile
Sylgard 184	Electron Microscopy Sciences	24236-10	PDMS elastomer and curing agent. Used for our in-house bioreactor.
PDMS Foam			Made in-house for use in our in-house bioreactor.
High Concentration Bovine Collagen Type I	Advanced Biomatrix	5133-A	FibriCol ~10 mg/ml
Growth Factor Reduced Matrigel (Basement Membrane)	Corning	354230	Basement membrane material
Sodium Bicarbonate	Sigma	S8761	
Molecular Biology Grade Water	Fisher	BP2819-1	
DMEM 10x	Sigma-Aldrich	D2429	
Nunc Lab-Tek Chamber Slide System	Thermo Scientific	177402	8-well
Bioreactor			Made in-house.
Spring-Back 304 Stainless Steel—Coated with PTFE polymer	McMaster-Carr	1749T19	Stainless steel wires to generate microchannels in our in-house bioreactor system. 0.016" Diameter
BioPharm Plus platinum-cured silicone pump tubing, L/S 14	Masterflex	EW-96440-14	For use in our in-house bioreactor system. Tubing ID: 1.6 mm, Hose barb size: 1/16 in.

2-Stop Tubing Sets, non-flared PVC, 1.52 mm ID	Cole-Parmer	EW-74906-36	For use in our in-house bioreactor system (with microperistaltic pump).
Six Channel precision micro peristaltic pump	Cole-Parmer	EW-74906-04	For use with our in-house bioreactor system
Tuberculin Syringes	BD Medical	309625	26 gauge 3/8 in. needle; Sterile
Dissecting Tissue Forceps	FisherBrand	13-812-36	5.5 inch
Mini Tube Rotator	Boekel Scientific	260750	Equipment option for surrogate rotation. Used with carousel for 50 ml tubes (model number 260753)
50 ml tube carousel	Boekel Scientific	260753	Used with mini tube rotator
Bambino Hybridization Oven	Boekel Scientific	230301	Equipment option for surrogate rotation
HistoGel Specimen Processing Gel	Thermo Scientific	HG-4000-012	Specimen Processing Gel described in Step 5.2
Cryomold	Andwin Scientific	4566	15 mm x 15 mm x 5 mm
Tissue Marking Dye	Cancer Diagnostics, inc.	03000P	Can be used to mark surrogates, allowing multiple samples to be included in one tissue cassette
Hinged tissue cassettes	FisherBrand	22-272-416	
Formalin	Fisher	23-245-685	
GoldSeal Plain Glass Slides	Thermo Scientific	3048-002	
Xylene	Fisher	X3P-1GAL	
Ethanol, 200 proof (100%), USP	Decon Laboratories, Inc.	2805M	
Hematoxylin	Thermo Scientific Richard-Allan Scientific	7211	
Clarifier	Thermo Scientific Richard-Allan Scientific	7401	
Bling Solution	Thermo Scientific Richard-Allan Scientific	7301	
Eosin Y	Thermo Scientific Richard-Allan Scientific	7111	
Cytoseal XYL mounting media	Thermo Scientific Richard-Allan Scientific	83124	
Coverslips	Fisher Scientific	12-548-5G	