

Materials List for:

Microfluidic Bioprinting for Engineering Vascularized Tissues and Organoids

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Materials

Name	Company	Catalog Number	Comments
Alginate acid sodium salt from brown algae	Sigma-Aldrich	A0682	BioReagent, plant cell culture tested, low viscosity, powder
Gelatin type A from porcine skin	Sigma-Aldrich	G2500	Gel strength 300
Irgacure 2959 (2-Hydroxy-4'-(2-hydroxyethoxy)-2-methylpropiophenone)	Sigma-Aldrich	410896	98%
HEPES buffer	Sigma-Aldrich	H0887	1 M, pH 7.0 - 7.6, sterile-filtered, BioReagent, suitable for cell culture
Fetal bovine serum	Thermo Fisher Scientific	10438026	Qualified, heat-inactivated, USDA-approved regions
Calcium chloride dihydrate	Sigma-Aldrich	C5080	BioXtra, ≥99.0%
Phosphate buffered saline	Thermo Fisher Scientific	10010023	pH 7.4
Human umbilical vein endothelial cells	Angio-Proteomie	cAP-0001	Human Umbilical Vein Endothelial Cells (HUVECs)
GFP-expressing human umbilical vein endothelial cells	Angio-Proteomie	cAP-0001GFP	GFP-Expressing Human Umbilical Vein Endothelial Cells (GFPHUVECs)
Endothelial cell growth medium	Lonza	CC-3162	EGM-2 BulletKit
Dulbecco's Modified Eagle Medium	Thermo Fisher Scientific	12430054	High glucose, HEPES
Sylgard 184 silicone elastomer kit	Ellsworth Adhesives	184 SIL ELAST KIT 0.5KG	Clear 0.5 kg Kit
UV curing lamp system	Excelitas Technologies	OmniCure S2000	Spot UV Light Curing System with Intelligent UV Sensor