

Materials List for:

Purification of Hepatocytes and Sinusoidal Endothelial Cells from Mouse Liver Perfusion

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Materials

Name	Company	Catalog Number	Comments
1 L Erlenmeyer flask	Fisher Scientific	S63274	
250 mL Erlenmeyer flask	Fisher Scientific	S63271	
silicone tubing	Cole-Parmer	96400-14	This tubing runs from the flasks through the pump to the T connector and then to the 1.0 mL syringe that is connected to the catheter.
Tygon tubing	Fisher Scientific	R3603	Used as an adaptor between 96400-14 and pipettes and T connector. This may also be used for the oxygen tubing.
T-connectors	Cole-Parmer	EW-06294-82	
Quick disconnects	Fisher Scientific	6150-0010	
Pinch Clamps	Fisher Scientific	6165-0002	
Masterflex L/S Variable speed Pump, model 7553-70	Cole-Parmer	EW-07559-00	Periplastic pump with variable speed
Pump head, model 7014-20	Cole-Parmer	EW-07014-20	
glass graduated 1.0 mL pipettes	Fisher Scientific	13-678	
curved non-serrated scissors	Fine Science Tools	14069-12	
Dumont forceps	Fine Science Tools	11252-20	
Curved forceps	Fine Science Tools	13009-12	
10 mL syringe	Fisher Scientific	03-377-23	Only barrel of syringe will be needed
sterilized spoon	Home supply store		
Cotton ball(s)	Home supply store		
Polyester sewing thread	Home supply store		
Masking tape	Home supply store		
thumb tacks	Home supply store		
styrofoam pad	50 mL conical rack		
cookie/baking sheet	Home supply store		
Absorbant underpads	Fisher Scientific	14-206-64	
19 L water bath	Fisher Scientific	TSCOL19	
BD Insyte Autoguard Shielded IV Catheter 24 gauge	Becton Dickinson	381412	Plastic catheter with retractable needle
Crystallizing dishes 100x50	VWR	89000-290	
Polystyrene petri dishes	Sigma Aldrich	P5481-500EA	
50 mL conical tubes	Fisher Scientific	12-565-270	

graduated pipettes (5 mL)	Fisher Scientific	170355	
graduated pipettes (25 mL)	Fisher Scientific	170357	
EasyStrainer 100 μ M	Greiner bio-one	542000	100 μ m filter
EasyStrainer 40 μ M	Greiner bio-one	542040	40 μ m filter
Sterile transfer pipettes	Fisher Scientific	13-711-20	
Refrigerated swinging bucket centrifuge	Sorvall Legend XTR	75-217-406	Centrifuge with swinging bucket rotar
Galaxy 170R tissue culture incubator	Eppendorf	CO170R-120-0000	Humidified tissue culture incubator
Reagents			
Name	Compound	Grams (g/L)	Millimolar (mM)
Buffer 1, pH 7.4	NaCl	8.3	142
	KCl	0.5	6.7
	HEPES	2.4	10
	BSA	15	0.226
Buffer 2, pH 7.4	NaCl	3.9	66.74
	KCl	0.5	6.71
	CaCl ₂	0.7	6.31
	HEPES	24	100
	BSA	15	0.226
Buffer 3, pH 7.4	Phenol Red	0.01	0.03
	NaCl	8	137
	KCl	0.35	4.7
	MgSO ₄	0.08	0.66
	CaCl ₂	0.18	1.62
PBS, pH 7.4	HEPES	2.4	10
	BSA	15	0.226
	NaCl	8	137
	KCl	0.2	2.7
	Na ₂ HPO ₄ -7H ₂ O	1.15	4.3
	KH ₂ PO ₄	0.2	1.4
Other reagents			
Name	Company	Catalog Number	Comments
Percoll (PVP solution)	GE Healthcare	288555	
Collagenase Type IV	Sigma Aldrich	C5138	
Isoflurane	Abcam	ab144581	
Hepatocyte Growth Medium			
DMEM	Gibco	11965118	
10% by volume fetal bovine serum	Gibco	10437010	
Pen/Strep (2x)	Gibco	15140148	
Long-term Hepatocyte Growth Medium			
DMEM			
10% by volume fetal bovine serum	Gibco	10437010	
Pen/Strep (2x)	Gibco	15140148	
Glucagon	Sigma	G3157-2mg	14 ng/mL

Insulin	Sigma	I9278-5mL	0.5 U/mL
Hydrocortisone	Sigma	H0888-1g	7.5 mg/mL
Epidermal Growth Factor	BD Biosciences	354001-100ug	20 ng/mL
LSEC medium			
RPMI	Gibco	11875119	
10% by volume fetal bovine serum	Gibco	10437010	
Pen/Strep (2x)	Gibco	15140148	