

Materials List for

In Vivo Murine Liver Perfusion: A Method to Infuse the Rodent Liver with Solution via the Portal Vein

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URL: <https://www.jove.com/video/20084>

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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 disconnections	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 µM	Greiner bio-one	542000	100 µm filter
EasyStrainer 40 µM	Greiner bio-one	542040	40 µm filter
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
	Phenol Red	0.01	0.03
PBS; pH 7.4	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
Collagenase Type IV	Sigma Aldrich	C5138	
Isoflurane	Abcam	ab144581	