

Materials List for:

Ischemia-reperfusion Model of Acute Kidney Injury and Post Injury Fibrosis in Mice

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Materials

Name	Company	Catalog Number	Comments
Ketamine (anesthetic)	Webster Veterinary	07-881-9413 (100 mg/ml)	Final concentration 30 mg/ml Ketamine with 3 mg/ml Xylazine administered at 3-4 ml/kg (100 mg/kg Ketamine and 10 mg/kg Xylazine)
Xylazine (analgesic)	Webster Veterinary	07-808-1939 (100 mg/ml)	As above
Antisedan (anti-Xylazine)	Webster Veterinary	07-867-7097 (5 mg/ml)	Optional: to reverse effects of Xylazine in order to increase the rate of recovery after surgery Use 0.5-0.7 mg/kg
Buprenorphine (analgesic)	Bedford Laboratories	NDC 55390-100-10 (0.3 mg/ml)	Dose 0.05-0.1 µg/g every 8-12 hr. Make up a 1:5 dilution in sterile normal saline preoperatively and give 2.5-5 µl/g of the diluted solution.
Ophthalmic ointment	Dechra	NDC 17033-211-38	
Betadine swab sticks	Purdue Products L.P.	NDC 67618-153-01	
Nolvasan Surgical Scrub	Pfizer Animal Care	300253	

Table 2. Drugs and solutions for I/R surgery.

Iris Scissors	Integra Miltex	VWR 21909-404	For skin and muscle dissection
Curved iris forceps	FST	11065-07	To hold skin and muscle, to remove peri-nephric fat
Blunt forceps	ROBOZ	RS-5228	To manipulate kidneys
Vascular clamp (795 g pressure)	ROBOZ	RS-5459	Good for C57BL/6 and BALB/c mice strains
Schwartz clip applying forceps	ROBOZ	RS-5450	For RS-5459 clamps
Vascular clamp (75-85 g pressure)	FST	18055-02	Optimal for CD1 mice strain, but also can be used for C57BL/6 and BALB/c
Micro-Serrefine Clamp Applicator-14 cm with Lock	FST	18056-14	For FST 18055-02 clamps
Gayman T/Pump (water-bath heated platform)	Braintree Scientific	TP-650	The water heater is set at 38 °C 1 hr prior surgery
15" W x 24" Heated platform	Braintree Scientific	HHP-2	Connect to Gayman heated water pump
Heating pad	Braintree Scientific	Model 39DP	Uses microwave for heating. This is useful for warming during recovery
Absorbable suture (Vicryl 5-0)	ETHICON	VCP834G	For fascia and muscle

Non-absorbable suture: monofilament nylon MONOMID 6/0 660B)	CP Medical	CP-B660B-03	For skin
Halsey needle holder: Tungsten Carbide/13 cm	FST	12501-13	To hold suture needles
Timer	FST	06-662-3	To quantify ischemia time
Hot bead sterilizer	FST	18000-45	To sterilize instruments between mice if you are performing multiple surgeries (it is not sufficient to soak instruments in ethanol)
Electric razor	Braintree Scientific	CLP-22965	
Tape	Durapore	1538-0	
1 ml Syringe	EXELint	26044	
Sterile cotton tipped applicators	Kendall	8884541300	
Absorbent BenchPad	VWR	56617-014	
Surgical drapes	VWR	21902-985	Need to be autoclaved
2" x 2" Gauze Pads	Medi-First	60673	
Sterile gloves	Cardinal Health	2D7251	

Table 3. Equipment and instruments for I/R surgery.