

Materials List for:

Estimation of Nephron Number in Whole Kidney Using the Acid Maceration Method

Sarah M. Peterson¹, Xuexiang Wang², Ashley C. Johnson¹, Ian D. Coate¹, Michael R. Garrett^{1,3}, Sean P. Didion^{1,4}

¹Department of Pharmacology and Toxicology, The University of Mississippi Medical Center

²Department of Medicine, Division of Nephrology, Rush University Medical Center

³Department of Medicine, Division of Nephrology, The University of Mississippi Medical Center

⁴Department of Neurology, The University of Mississippi Medical Center

Correspondence to: Sean P. Didion at didionlab@gmail.com

URL: <https://www.jove.com/video/58599>

DOI: [doi:10.3791/58599](https://doi.org/10.3791/58599)

Materials

Name	Company	Catalog Number	Comments
Isoflurane anesthesia	Abbott Laboratories	05260-05	
Isoflurane vaporizer system & flow gauge	Braintree Scientific	VP I	Include medical grade oxygen supply
Leica Inverted Microscope DMIL LED	Leica Microsystems	DMIL LED	Any make also suitable
Digital water bath	Fisher Scientific	2239	Any make also suitable
ToughCut Fine surgical scissors	Fine Science Tools	14058-11	25 mm cutting edge, 11.5 cm length; Tips: sharp-sharp; Tip shape: straight
Micro dissecting forceps 4 1/4 in.	Biomed Res Instruments, Inc	10-1760	Curved tip
Plexiglass board 5 in. x 7 in.	any source suitable	n/a	Any make also suitable
Hexagonal polystyrene weighing dish	Fisher Scientific	02-2002-100	Any make also suitable
Razor blades	Fisher Scientific	12-640	Single edge carbon steel 0.009
Gauze sponges 4 x 4 in. 8 ply	Fisher Scientific	MSD-1400250	
10x concentrate phosphate buffered saline (PBS)	Sigma Aldrich	P5493-4L	Dilute to 1x
6 N Hydrochloric acid solution	Sigma Aldrich	3750-32	
15 mL conical centrifuge tube	Fisher Scientific	14-959-70C	Any make also suitable
50 mL conical centrifuge tube	Fisher Scientific	14-959-49A	Any make also suitable
Disposable 5 mL syringe	Cole Palmer	EW-07944-06	Any make also suitable
18G1.5 disposable needle	Fisher Scientific	14-826-5D	Any make also suitable
21G1.5 disposable needle	Fisher Scientific	14-826-5B	Any make also suitable
12-well multiple-well cell culture plates with lid	Cole Palmer	#FW-01959-06	Any make also suitable
Polypropylene modular test tube rack	Cole Palmer	#EW-06733-00	Capable of accommodating 15 and 50 mL conical tubes; any make also suitable