

Materials List for:

A Simple High Efficiency Protocol for Pancreatic Islet Isolation from Mice

Daniel Villarreal¹, Geetali Pradhan², Chia-Shan Wu^{1,2}, Clinton D Allred¹, Shaodong Guo¹, Yuxiang Sun^{1,2}

¹Department of Nutrition and Food Science, Texas A&M University

²Children's Nutrition Research Center, Baylor College of Medicine

Correspondence to: Yuxiang Sun at yuxiangs@tamu.edu

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Materials

Name	Company	Catalog Number	Comments
3 mL syringe	BD	309657	Holding collagenase P
Coverglass forceps	VWR	82027-396	Holding skin of mouse to aid incision procedure
Curved forceps	Sigma-Aldrich	Z168696	Holding tissues during pancreas removal
Isoflurane	Piramal	B13B16A	To anaesthetize mice prior surgery
100 mm petri dishes	VWR	30-2041	Used for islet culture
30 G. ½ inch needle	BD	305106	For penetration of Ampulla of Vater to deliver Collagenase P - this gauge is used as it fits well in most CBDs
50ml tube	VWR	89039-658	Holding digested pancreatic tissue, collagenase P, and purified islets
Absorbent pads with waterproof moisture barrier	VWR	82020-845	To absorb blood from surgical procedures
Centrifuge 5810R with swing bucket and deceleration capability	Eppendorf	5811FJ478114	Use for pelleting tissues, pellet is formed at bottom of conical tube - swing bucket centrifuge is needed. Also the deceleration feature is important to form the gradient layers.
Collagenase P- 1g	Roche Diagnostics	11249002001	For digestion of exocrine pancreas
Curved surgical scissors	Fisher-Scientific	13-804-21	For cutting open mouse abdomen
Dissection microscope	Olympus	SZX16	Used for identification of key anatomical structures to accurately deliver collagenase into pancreas
Hank's Balanced Salt Solution 10x	Corning	20-023-CV	Washing cells
Histopaque-1077	Sigma	RNBF5100	For gradient formation
Light source	Leeds	LR92240	Enhancing visibility of microscope
RNaseZap	Fisher-Scientific	AM9780	For removing RNase
RPMI-1640 Media w/o L-Glutamine	Corning	15-040-CV	Culturing Islets
Schwartz micro serrefines (Microvascular clamp)	Fine Science Tools	18052-01	Clamping common bile duct and hepatic artery
Shaking waterbath	Boekel/Grant	8R0534008	Important for mechanical digestion of exocrine tissue
Small surgical scissors	VWR	82027-578	Cutting tissue that attached to pancreas