



## ADI IsletCore Protocols for the Isolation, Assessment and Cryopreservation of Human Pancreatic Islets of Langerhans for Research Purposes [↗](#)

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[dx.doi.org/10.17504/protocols.io.x3mfqk6](https://doi.org/10.17504/protocols.io.x3mfqk6)

Human Cell Atlas Method Development Community



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### ABSTRACT

This collection of protocols describe the processes used by the Alberta Diabetes Institute IsletCore for the isolation of human pancreatic islets of Langerhans for research. In addition, protocols related to quality control and the cryopreservation of human islets are included.

The ADI IsletCore program is described in full here:

Lyon J, Manning Fox JE, Spigelman AF, Kim R, Smith N, O'Gorman D, Kin T, Shapiro AMJ, Rajotte RV, MacDonald PE (2016) Research-focused isolation of human islets from donors with and without diabetes at the Alberta Diabetes Institute IsletCore. [Endocrinology, 157\(2\): 560-569.](#)

### EXTERNAL LINK

[www.isletcore.ca](http://www.isletcore.ca)

### PROTOCOL STATUS

#### Working

We use this protocol in our group and it is working

### Collection protocols

	Isolation of Human Pancreatic Islets of Langerhans for Research by Jocelyn Manning Fox, University of Alberta	<a href="#">RUN</a>
	Human Islet Isolation Media Preparation by Jocelyn Manning Fox, University of Alberta	<a href="#">RUN</a>
	IsletCore Equipment Setup for Human Islet Isolation by Jocelyn Manning Fox, University of Alberta	<a href="#">RUN</a>
	Human Pancreas Biopsy Collection, ex vivo by Jocelyn Manning Fox, University of Alberta	<a href="#">RUN</a>
	Human Islet Purification - COBE setup by Jocelyn Manning Fox, University of Alberta	<a href="#">RUN</a>
	Human Islet Quantification and Purity Assessment by Jocelyn Manning Fox,	<a href="#">RUN</a>



Sampling of Human Islets for Quality Control Purposes  
by Jocelyn Manning Fox,  
University of Alberta

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Human Islet Cryopreservation  
by Jocelyn Manning Fox,  
University of Alberta

RUN



Thawing Cryopreserved Human Islets  
by Jocelyn Manning Fox,  
University of Alberta

RUN



Static Glucose-stimulated Insulin Secretion (GSIS) Protocol - Human Islets  
by Aliya Spigelman,  
University of Alberta

RUN



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