

## Checklist for Reporting Human Islet Preparations Used in Research

Adapted from Hart NJ, Powers AC (2018) Progress, challenges, and suggestions for using human islets to understand islet biology and human diabetes. *Diabetologia* <https://doi.org/10.1007/s00125-018-4772-2>.

<b>Manuscript DOI:</b> <a href="https://doi.org/10.2337/[insert manuscript submission number]">https://doi.org/10.2337/[insert manuscript submission number]</a> (Example, <a href="https://doi.org/10.2337/db18-1234">https://doi.org/10.2337/db18-1234</a> )	
<b>Title:</b> Melanophilin accelerates insulin granule fusion without predocking to the plasma membrane	
<b>Author list:</b> Hao Wang, Kouichi Mizuno, Noriko Takahashi, Eri Kobayashi, Jun Shirakawa, Yasuo Terauchi, Haruo Kasai, Katsuhide Okunishi, and Tetsuro Izumi	
<b>Corresponding author:</b> Tetsuro Izumi	<b>Email address:</b> <a href="mailto:tizumi@gunma-u.ac.jp">tizumi@gunma-u.ac.jp</a>

Islet preparation	1	2	3	4	5	6	7	8 <sup>a</sup>
<b>MANDATORY INFORMATION</b>								
Unique identifier	R288	R335	R338	R340	R342	R348		
Donor age (years)	69	25	30	36	35	43		
Donor sex (M/F)	F	M	M	M	M	F		
Donor BMI (kg/m <sup>2</sup> )	27.7	24.6	25.5	23.3	25.1	16.4		

Donor HbA <sub>1c</sub> or other measure of blood glucose control % (mmol/mol)	5.7 (39)	4.9 (30)	5.7 (39)	5.3 (34)	5.5 (37)	5.7 (39)		
Origin/source of islets <sup>b</sup>	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore		
Islet isolation centre	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore	Alberta IsletCore		
Donor history of diabetes? Yes/No	No	No	No	No	No	No		
<b>If Yes, complete the next two lines if this information is available</b>								
Diabetes duration (years)								
Glucose-lowering therapy at time of death <sup>c</sup>								

RECOMMENDED INFORMATION								
Donor cause of death								
Warm ischaemia time (h)								
Cold ischaemia time (h)	22.3	12	15.5	12.5	12	15.5		

Estimated purity (%)	95	80	90	95	85	95		
Estimated viability (%)	70	80	95	65	85	90		
Total culture time (h) <sup>d</sup>								
Glucose-stimulated insulin secretion or other functional measurement <sup>e</sup>	Mean 16.7 mM to 2.8 mM stimulation index:8.52	Mean 16.7 mM to 2.8 mM stimulation index:11.92	Mean 16.7 mM to 2.8 mM stimulation index:6.73	Mean 16.7 mM to 2.8 mM stimulation index:4.56	Mean 16.7 mM to 2.8 mM stimulation index:41.76	Mean 16.7 mM to 2.8 mM stimulation index:1.63		
Handpicked to purity? Yes/No	Yes	Yes	Yes	Yes	Yes	Yes		
Additional notes	Used for Fig. 2D	Used for Fig. 2E and Supplementary Fig. 4	Used for Fig. 2E and Supplementary Fig. 4	Used for Fig. 2E and Supplementary Fig. 4	Used for Fig. 2E, Supplementary Fig. 4, and Videos 2 and 3	Used for Fig. 2E and Supplementary Fig. 4		

<sup>a</sup>If you have used more than eight islet preparations, please complete additional forms as necessary

<sup>b</sup>For example, IIDP, ECIT, Alberta IsletCore

<sup>c</sup>Please specify the therapy/therapies

<sup>d</sup>Time of islet culture at the isolation centre, during shipment and at the receiving laboratory

<sup>e</sup>Please specify the test and the results