

Materials List for

A Murine Model of Hyperlipidemia-Induced Heart Failure with Preserved Ejection Fraction

Monique Williams^{1,2}, Ali Kamiar^{2,3}, Jose Manuel Condor Capcha^{1,2}, Monica Anne Rasmussen⁴, Qusai Alitter², Rosemeire Kanashiro Takeuchi^{2,3}, Lauro Mitsuru Takeuchi², Joshua M. Hare^{1,2}, Lina A. Shehadeh^{1,2}

¹Department of Medicine, Division of Cardiology, University of Miami Leonard M. Miller School of Medicine ²Interdisciplinary Stem Cell Institute, University of Miami Leonard M. Miller School of Medicine ³Department of Molecular and Cellular Pharmacology, University of Miami Leonard M. Miller School of Medicine ⁴Department of Medical Education, University of Miami Leonard M. Miller School of Medicine

Corresponding Author	Citation		
Lina A. Shehadeh	Williams, M., Kamiar, A., Condor Capcha, J.M., Rasmussen, M.A., Alitter, Q., Kanashiro		
Ishehadeh@med.miami.edu	Takeuchi, R., Mitsuru Takeuchi, L., Hare, J.M., Shehadeh, L.A. A Murine Model of		
	Hyperlipidemia-Induced Heart Failure with Preserved Ejection Fraction. J. Vis. Exp. (205),		
	e66442, doi:10.3791/66442 (20	24).	
Date Published	DOI	URL	
March 29, 2024	10.3791/66442	jove.com/video/66442	

Materials

Name	Company	Catalog Number	Comments
Adeno-associated virus 9-cardiac troponin T-LDLR (AAV9-cTnT-LDLR)	U. Penn Vector Core, funded by the NHLBI Gene Therapy Program (GTRP)		Transgene plasmids and AAVs particles were generated by the U. Penn Vector Core, funded by the NHLBI Gene Therapy Program (GTRP). AAV were provided in Dulbecco's phosphate-buffered saline (PBS) with 0.001% Pluronic F68. The Core determined AAV titers by digital droplet polymerase chain reaction (ddPCR) and assessed all preparations for capsid protein ratio by SDS-PAGE and for the presence of endotoxin. Constructs include the human (h) transcripts tagged by 3X HA, Penn Vector Core (RRID: SCR_022432). AAV9-cTNT-hLDLR plasmid encodes the full human LDLR protein (2664bp).
Imaging systems with a high frequency transducer probe MS400	(VisualSonics, Toronto, ON, Canada)	Vevo 2100 or 3100	
LabChart software	ADInstruments	Pro version 8.1.5	
Poloxamer 407	Sigma-Aldrich	16758	
PV catheter	Millar Instrument	PVR 1035	
Ultrasound analysis software	Vevo Lab		
Wild-type (WT) mice on 129J background	Jackson Laboratory		