

Supplementary table 2: Diets, instruments, kits, chemicals and software used in this study.

Items	Source and identifier
Diets	
Chow	Teklad Global 18% Protein Rodent Diet (2018SX) https://www.envigo.com/resources/data-sheets/2018sx-datasheet-0915.pdf
HFD	SF16-001, Specialty Feeds, Australia http://www.specialtyfeeds.com/diets/sf16-001/
Instruments	
echoMRI	EchoMRI™-500 Body Composition Analyzer (EchoMRI LLC, Texas, USA)
Glucometer	Accu-Chek® Performa II, Roche
Metabolic cages	Promethion® BX1 metabolic cages (Sable Systems International, Las Vegas, USA)
Plate reader (Spectrophotometric)	Versamax™ microplate reader, Molecular Devices
Plate reader (Fluorometry)	Glomax® Discover microplate reader, Promega
NanoDrop	NanoDrop Lite Spectrophotometer (Thermo Fisher Scientific, CA)
Cryostat	Leica CM 1950, Leica Biosystems
Nanozoomer	NanoZoomer S60 Digital Slide Scanner C13210-01, Hamamatsu, Japan
Thermal cycler (RT)	T100 thermal cycler (Bio-Rad, CA, USA)
Thermal cycler (real time PCR)	QuantStudio 7 (ThermoFisher)
Chemiluminescence and fluorescence imaging system	ImageQuant LAS-4000, Fujifilm
Kits	
Insulin	Ultra-Sensitive Mouse Insulin ELISA Kit (#90080 Crystal Chem, USA)
Triglyceride	Triglycerides Assay Kit-Quantification (ab65336, Abcam, USA)
RT kit	QuantiTect Reverse Transcription kit (#205313, Qiagen, USA)
Master mix	Taqman™ Fast Universal PCR Master Mix (2X) (#4352042, Applied Biosystems, Lithuania)
BCA assay	ThermoFisher (23228 & 1859078)
Chemiluminescence substrate	ThermoFisher (Super signal, 34095)
Chemicals	
Phosphate Buffer	Cat. No P4417, Sigma Life Science, USA
TRIZOL	TRI Reagent (T9424, Sigma, USA)
OCT compound	Tissue-Tek O.C.T Compound (IA018, Sakura, Finetek, USA)

Mounting media	glycerine jelly medium (108562; Aquatex, Merk Millipore, VIC, Australia)
Durex K-Y ® Jelly	Reckitt Benckister, NSW, Australia
NP-40	Sigma (MKCD6607)
Sucrose	Sigma (S9378)
Oil red O	Sigma-Aldrich (O-0625)
Tissue-Tek Cryomold	Sakura Finetek (4566), USA
Sodium Dihydrogen Orthophosphate	Chem Supply (SA061)
Sodium Phosphate dibasic	Sigma Aldrich (S0876), USA
Paraformaldehyde	Aldrich Chemistry (441244), USA
Triton X-100	Aldrich (234729), USA
Phosphate buffered saline	Sigma Life Science (P4417)
Potassium hydroxide	Sigma Aldrich (P5958), USA
Ethylenediaminetetraacetic acid disodium salt dihydrate	Sigma (E1644), USA
Oxaloacetic acid	Sigma Life Sciences (04126)
Acetoacetyl Coenzyme A (Sodium salt dihydrate)	Sapphire Bioscience (000-25365)
Acetyl-CoA	Roche Diagnostics GmbH (10101893001), Germany
NADH, disodium salt	Roche Diagnostic (10107735001), Germany
TRIS	Sigma (T6066)
Alcohol dehydrogenase	Sigma (A3263)
Tissue lysis buffer	Sigma (CellLytic MT cell lysis reagent (C3228))
Nicotinamide	Sigma (72340)
NAD	Roche Diagnostics (10127955001)
DTNB	Sigma 9D8130)
Oxaloacetic acid	Sigma (O-4126)
Software	
SPSS	Version 26; IBM Corp., Armonk, New York
GraphPad Prism	Prism for windows, version 7.02
ExpeData software	Version 1.8.2 Sable Systems, Las Vegas, USA
Universal Macro Collection	Version 10.1.3, Sable Systems, Las Vegas, USA
R	R for windows, version 4.0.1
Cosinar	Michael Sachs. Package cosinor. February 19, 2015 (https://cran.r-project.org/web/packages/cosinor/cosinor.pdf)
ImageJ	ImageJ 1.52a, National Institutes of Health, Bethesda, M)