

Supporting information

Supplementary Table 1. Nutrient composition of the control diet (LRC4).

• Nutrient composition (per 100 g of diet)

		unit
Water	8.5 ± 0.3	g
Crude protein	18.4 ± 0.3	g
Crude fat	3.0 ± 0.1	g
Crude ash	8.3 ± 0.4	g
Crude fiber	16.7 ± 0.7	g
Nitrogen free extract (NFE)	45.1 ± 0.7	g
Energy	280.6 ± 2.5	kcal
Vitamin A	303 ± 139	IU
Vitamin D3	89 ± 43	IU
Vitamin E	6.5 ± 0.5	mg
Vitamin B ₁	0.76 ± 0.07	mg
Vitamin B ₂	1.29 ± 0.11	mg
Vitamin C	58 ± 8	mg
Calcium	1.14 ± 0.06	g
Phosphorus	0.52 ± 0.03	g
Magnesium	0.31 ± 0.03	g
Sodium	0.19 ± 0.05	g
Potassium	1.64 ± 0.12	g

Supplementary Table 2. Primer sequence used for real-time PCR

Gene	Accession number	Primer sequence (5' - 3')
GAPDH	NM_001082253	F 5'-GGCAAAGTGGATGTTGTCGC-3' R 5'-GATCTCGCTCCTGGAAGATGG-3'
ABCA1	XM_008257418.2	F 5'-GGCGCTGACTCAAGATGTCTCT-3' R 5'-TACGGCAGCACATAGGTCAG-3'
ABCB11	NM_001082083.1	F 5'-GAGGGAACCTACCAGGACAGTTTAAGA-3' R 5'-TGCCAGGTAAGAAAGCTGAGACT-3'
ABCG5	XM_008254466.2	F 5'-TTGAGTGCGCCTACAAGGAA-3' R 5'-CACCGCCTGCTTATTCCTCA-3'
ABCG8	XM_017340804.1	F 5'-TGTCACCTCCAAATGCCACTC-3' R 5'-GACAATGTAGGCGCAGTGCT-3'
ACACA	XM_008271162.2	F 5'-ACCATTAGCCTGGTGACGTG-3' R 5'-CCCAGCGCCTGTGAGAATTA-3'
ACADL	XM_002712562.3	F 5'-GACAAATCGTGAAGCTCGCTC-3' R 5'-GCTGGCAACCGTACATCTTC-3'
ACADM	XM_002715911.3	F 5'-TTGGGTTGACTGAACAGCAG-3' R 5'-AGGGACAGGGTATTCACCAG-3'
ACAT2	XM_002714983.3	F 5'-CAATGGCAGGTGAGTCGAGA-3' R 5'-TCACTTCGGTAGGCCCTTTC-3'
ACOX1	XM_008250924.2	F 5'-CCGGGCAGCCAGATTAGTAG-3' R 5'-GCTCGAACAAGGTCCACAGA-3'
ACSL1	XM_008250560.2	F 5'-ACAAGTGGAACCACAGGCAA-3' R 5'-TGAGGCTTAGGGCCAATCAA-3'
ACTA2	NM_001101682.2	F 5'-CCCACAACGTGCCCATCTAT-3' R 5'-CACGTTTCAGCAGTAGTCACG-3'
APOB	XM_008254783.2	F 5'-TCGACGTAGGCCATATGCAG-3' R 5'-TGCTGCTCCTAGCAAAGTCC-3'
ASC	XM_002721750.3	F 5'-GGGATCAAGGCCCATCTGA-3' R 5'-GCTGAAGAGCTTCCTCATCTTG-3'
BIM	XM_017340061.1	F 5'-CGGATCGGAGACGAGTTCAA-3' R 5'-AATGCATCCTCCACACCAGG-3'
CASP1	XM_008262043.2	F 5'-ACTGCCAGAAGGTAGGACAC-3' R 5'-GATAGCACTCTTGGCTTCGTAT-3'
CAT	XM_002709045.3	F 5'-GCTGAGAAGCCTAAGAACGC-3'

CCL2	NM_001082294.1	R 5'-TGGAAAGCTGGGTGAGCATC-3' F 5'-GCTGTGATCTTCATGACCAAAC-3'
CD14	NM_001082195.2	R 5'-CGTGTGTTCTTGGGTTGTGG-3' F 5'-CCATCAATTATGGAGCCCGT-3'
CD36	XM_008258299.2	R 5'-AAGTTGCAGACACAGCGGAT-3' F 5'-TGCTAGACATCGGCAAGTGT-3'
CD68	XM_008270775.2	R 5'-AGCCGCTTTGCAAACGTAA-3' F 5'-TCCCAAGAGAGGGAAGAGGG-3'
COL1A1	XM_017348831.1	R 5'-CCCTGGGCTGCGTGTAG-3' F 5'-TAAAGGGTCACCGTGGCTTC-3'
COL3A1	XM_002712333.3	R 5'-GAGGCCGTTGAGTCCATCTT-3' F 5'-CCACTCGGACTTGCAGGAAT-3'
CPT1	XM_008252852.2	R 5'-GCTTCCCACTTTCACCCTTG-3' F 5'-TTAACAAACTGTGTCCTGTGGC-3'
CTGF	XM_017345378.1	R 5'-AGCTTCAGCGATTGCCCAGA-3' F 5'-AACATTAAGAAGGGCAAGAAGTGC-3'
CYBB	NM_001082100.1	R 5'-ATCGGCCATCGGTGCATAC-3' F 5'-GGATGAGTCCCAGGCCAATC-3'
CYP27A1	NM_001190430.1	R 5'-TTCAGCCAAGGCTTCAGGTC-3' F 5'-CTCACGTGGGCCCTATACCA-3'
CYP2E1	XM_002718772.3	R 5'-ACACAAACTGGGTGTTCTTGG-3' F 5'-AGTACTCCTTGGCTGCAGGT-3'
CYP7A1	NM_001170929.1	R 5'-TCCGTGCTGTGTTTGTCTTC-3' F 5'-TGACATGCCAGTACTAGACAGC-3'
CYP7B1	XM_008255573.2	R 5'-AGGAACCATCCTCAAGGTGC-3' F 5'-CCTGGTCTACCTAGAAAGCGTC-3'
CYP8B1	NM_001082622.1	R 5'-AGGCAGAAGTTCCCGGTTTC-3' F 5'-ATACACTTGGCCAGCACCAA-3'
DDIT3	XM_017350485.1	R 5'-TCAGGTAGCCAGCCTTGAAC-3' F 5'-ACACCTGAAAGCAGAACTGAG-3'
DGAT1	XM_008253884.1	R 5'-CCTCCTGCAAGTCCTCATACC-3' F 5'-GTGTGGTGATGCTGATCCTGA-3'
DGAT2	XM_008263828.2	R 5'-CAGGCGTTTCTCAACCTGGA-3' F 5'-TTCCTCGTGCTAGGAGTGGC-3'
FABP1	XM_002709637.3	R 5'-TTTCTTGGGCGTGTTCCAGT-3' F 5'-CGGGAAGCACTTCAAGCTCA-3'

FASN	KF201292.1	R 5'-CAGCTTCACCACTGTCTTGACC-3' F 5'-CAACTACGGCTTTGCCAACTC-3'
FDFT1	XM_008248858.2	R 5'-CGATGACCGTGTCGTTGGTG-3' F 5'-GTGTGTGTTGTCTGCCCTCA-3'
HMGCR	XM_017339036.1	R 5'-ATACCGCATGGCGCATTTC-3' F 5'-GGGTATTGCTGGCCTCTTCA-3'
HMGCS1	XM_008262167.2	R 5'-AGCTTCATTCAAGCCCGTCA-3' F 5'-AATGAGCAGGCATCCACAGAG-3'
HMOX1	XM_002711415.3	R 5'-CAGGCATGGTGAAAGAGCTGTG-3' F 5'-CCGAGGGTTTTAAGCTGGT-3'
HTGL	NM_001082032.1	R 5'-TAGACCGGGTTCTCCTTGTTG-3' F 5'-ACAAAGCCTAAGACCAGAGCCAT-3'
IL-1 β	NM_001082201.1	R 5'-ATGGAGCCGAATCTGACAGC-3' F 5'-TCTGCAACACCTGGGATGAC-3'
IL-18	NM_001122940.1	R 5'-CATGGAGAACACCACTTGTTGG-3' F 5'-GAACCAGAAGAGGCTTGCAT-3'
LDLR	NM_001278865.1	R 5'-TCTGATTCCAGGTTCTCATCG-3' F 5'-AGCAACCGCATCTACTGGTC-3'
MDR1	NM_001082159.1	R 5'-TGCTGATGACGGTGTCGTAG-3' F 5'-TACAGAAAGTGAGAAGGTGGTC-3'
MFE2	XM_008254935.2	R 5'-ACAAGTATCTCCCATCTCCCA-3' F 5'-GCAGCTTGTTTGAGGTTGGA-3'
MRP2	XM_008270326.2	R 5'-GGCTTGCTGGCATTATCGAAG-3' F 5'-ACCGGAATTTGGAACCCACA-3'
MTTP	XM_002716956.3	R 5'-ATATGCAGTGGTGCCCTTGA-3' F 5'-AGCTCCCTTCAGGCGATTTG-3'
MYD88	XM_002723869.3	R 5'-GCAAATACCGCCTTGACAT-3' F 5'-TGTCTCTCGACTCTTGGAAGT-3'
NCEH1	XM_008266500.2	R 5'-CTCAGCTTTGCTACGAGAACA-3' F 5'-GCGCACAGCAAGTGAGTAAC-3'
NCF1	NM_001082102.2	R 5'-CCTGGCTTGAGAGAGCCTTC-3' F 5'-AGTGAGAGCACCAAGCGGAAG-3'
NLRP3	XM_017339176.1	R 5'-CCTCTGTCCTCATTCTGGAAACA-3' F 5'-ACCTCAACAAGCGCTACACA-3'
NQO1	XM_002711667.3	R 5'-CCAGGATGGTCTTCCCGATG-3' F 5'-GAAGGACATCACAGGCAAGCTG-3'

		R 5'-CCTTCAGAATGGCAGGGACTC-3'
NPC1L1	NM_001082228.1	F 5'-TTCCACAAGTACCTGCCCTG-3'
		R 5'-TGAAGCGGGTGGCTACAATC-3'
NTCP	NM_001082768.1	F 5'-GACAAGGTGCCCTATGGAGG-3'
		R 5'-AGAGGACAGCAACCGCTATG-3'
OATP1B3	XM_008259567.2	F 5'-AGTCTAAGTCCAGGTGATCGT-3'
		R 5'-TCAGTGCGAGAGCTACCAAG-3'
PERK	XM_017340230.1	F 5'-CAGACGAGTTCGTCCGAGAG-3'
		R 5'-CGCAGGACACAGTTCAAAGC-3'
PUMA	XM_017338809.1	F 5'-ATGGGACTTCTGCCCTTACC-3'
		R 5'-GCTGGGAGTCCCGTATGCTA-3'
SOD1	NM_001082627.2	F 5'-ACCATCCACTTCGAGCAGAAG-3'
		R 5'-GTCCTGTTATGCGTCCCTTGA-3'
SOD2	XM_008263745.2	F 5'-CAACGGTGGAGGTCACATCA-3'
		R 5'-AGCAGTGGAATAAGGCCTTTGG-3'
SQLE	XM_017341522.1	F 5'-TTCTGCCACAGATGATTCCCT-3'
		R 5'-GCAACAGCAAAGAAGTGTCCA-3'
SR-BI	NM_001082788.1	F 5'-TTGCCGAGATGAACGACTCC-3'
		R 5'-TCGGAGTGCCAGAAGTTCAC-3'
SREBP2	XM_002721384.3	F 5'-GACGCCAAGATGCACAAGTC-3'
		R 5'-TAGGTCGATGCCCTTCAGGA-3'
TGFβ	XM_008249704.2	F 5'-ACTGCTTCAGCTCCACAGAG-3'
		R 5'-CAGGACCTTGCTGTACTGGG-3'
TLR2	NM_001082781.1	F 5'-CGCTGAAAAACCTGACCGAC-3'
		R 5'-TGTGTATCCGTGTGCTGGAC-3'
TLR4	NM_001082732.2	F 5'-TG TTCACAGAAAATGCCAGGA-3'
		R 5'-GTAATATTGGGAACGACCTCCAC-3'
TNFα	NM_001082263.1	F 5'-GCCCACGTAGTAGCAAACCC-3'
		R 5'-GTGAGTGAGGAGCACGTAGG-3'
VLDLR	NM_001082188.1	F 5'-CTCAGTGCATCCCAGTGTCC-3'
		R 5'-CTGCACGTTACATTGCCACAG-3'

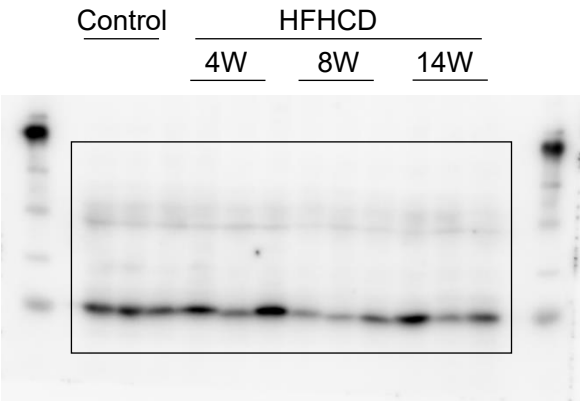
Supplementary Table 3. Primary antibodies for western blotting.

Protein name	Abbreviation	Manufacturer	Catalog no.
4-hydroxy-nonenal	4-HNE	JalCA (Shizuoka, Japan)	MHN-100P
glyceraldehyde-3-phosphate dehydrogenase	GAPDH	GeneTex (Hsinchu City, Taiwan)	GTX28245

Supplementary Figure 1. Full-length blots of 4-HNE.

The bands within the boxed area were used in the analysis.
The band intensity was quantified and demonstrated in Fig. 6C.

• 4-HNE



• GAPDH

