

1 **Supplementary Results:**

2 Supplementary Table 1: Compositions of experimental diet. The source of the feeds is Dyets
3 Inc., (Bethlehem, PA, USA).

Ingredients	Normal diet (ND)		High-fat diet (HFD)	
	AIN-76A diet # 100000		AIN-76A diet # 101556	
	g	kcal	g	kcal
Beef tallow	0	0	400	3600
Casein	200	720	200	720
Cellulose	50	0	50	0
Choline bitartrate	2	0	2	0
Corn oil	50	450	0	0
Methionine	3	12	3	12
Salt mixture	35	30.8	35	30.8
Starch	150	540	150	540
Sucrose	500	2000	150	600
Vitamin mixture	10	39	10	39
Total	1000	3791.8	1000	5541.8

4 Supplementary Table 2: Base sequences of adipogenic and lipogenic primers.

Gene Targets	Forward Primer (5' – 3')	Reverse Primer (5' – 3')	Product Size (bp) / Accession No.	Reference
PPAR- γ_1	CGGTTTCAGAAGTGCCTTGC	CCGCCAACAGCTTCTCCTT	90	[1]
C/EBP- α	GAGCCGAGATAAAGCCAAACA	CGGTCATTGTCACTGGTCAACT	74	[2]
C/EBP- β	AAGCTGAGCGACGAGTACAAGA	GTCAGCTCCAGCACCTTGTG	NM_009883	[3]
C/EBP- γ	TCCACGACTCCTGCCATGTA	GCGGCCATGGAGTCAATG	70	[4]
FAS	GGCTCAGCATGGTCGCTT	CTCCCGCCAGCTGTCATT	232	[5]
LPL	GATTTCTCTGTACGGCACAGTGG	TTTGTGGAAACCTCGGGC	68	[6]
GLUT4	TTGGTACCTACGCTTTGCAGC	CGGTTAGAGCGCATCAGTCTC	68	[6]
SREBP-1C	GTAGCGTCTGCACGCCCTA	CTTGGTTGTTGATGAGCTGGAG	89	[5]
ACC1	GGATGGTTTGGCCTTTCACA	TTTTCTTTCTGTCTCGACCTTGTTT	76	[6]
β -actin	TGACAGGATGCAGAAGGAGAT	CTCCTGCTTGCTGATCCACAT	-	-

5 PPAR- γ , peroxisome proliferator-activated receptor- γ ; C/EBP- α , CCAAT/enhancer binding protein- α ; C/EBP- β , CCAAT/enhancer binding
6 protein- β ; C/EBP- γ , CCAAT/enhancer binding protein- γ ; FAS, fatty acid synthase; LPL, lipoprotein lipase; GLUT4, glucose transporter 4;
7 SREBP-1C, sterol regulatory element-binding protein-1C; ACC1, acetyl-CoA carboxylase

8 **Supplementary Reference:**

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