

Supplementary Materials

Preventive effect of low-carbohydrate high-fat dietary pattern on liver disease during drinking via a 6pgd-involved mechanism in mice

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Li).

Supplementary table

Table S1. Primers design for Real-Time PCR.

Gene name	Forward (5'-3')	Reverse (5'-3')
<i>Rtn4rl2</i>	TCTGCACCTGCTACTCCTCC	AGCGGATGAGGTTGTTCTGC
<i>1810010H24Rik</i>	TCCTCCCGACGGCTTTTTC	ATTCTGGACACGGCTTATGGC
<i>Fdps</i>	GGAGGTCCTAGAGTACAATGCC	AAGCCTGGAGCAGTTCTACAC
<i>Mpo</i>	AGTTGTGCTGAGCTGTATGGA	CGGCTGCTTGAAGTAAAACAGG
<i>Cyp51</i>	GACAGGAGGCAACTTGCTTTC	GTGGACTTTTCGCTCCAGC
<i>Sqle</i>	ATAAGAAATGCGGGGATGTCAC	ATATCCGAGAAGGCAGCGAAC
<i>Cd63</i>	GAAGCAGGCCATTACCCATGA	TGACTTCACCTGGTCTCTAAACA
<i>Acly</i>	ACCCTTTCCTGCGGATCACA	GACAGGGATCAGGATTTCTTG
<i>Acss2</i>	AAACACGCTCAGGGAAAATCA	ACCGTAGATGTATCCCCAGG
<i>Ccnd1</i>	GCGTACCCTGACACCAATCTC	CTCCTCTTCGCACTTCTGCTC
<i>Arhgdib</i>	ATGACGGAGAAGGATGCACAG	CTCCCAGCAGTGTCTTCTGTGA
<i>Rtn4</i>	TGCCTTCATTGTTTGTCTGGG	TTCTAGCTGCTGATAGGCGA
<i>Itga9</i>	AAGTGTCGTGTCCATACCAAC	GGTCTGCTTCGTAGTAGATGTTC
<i>Dact2</i>	GTGTACCCATATCCCAGCCC	TCCTGCCCCACATCTCTCAG
<i>Ngp</i>	AGACCTTTGTATTGGTGGTGGC	GGTTGTATGCCTCTATGGCTCTA
<i>Abcc4</i>	GGCACTCCGGTTAAGTAACTC	TGTCACTTGGTTCGAATTTGTTCA
<i>Mmd2</i>	AGTATGAACACGCAGCAAAC	TCCCAGTCGTCATCGGACA
<i>Igkv3-4</i>	GCAACCTCTGCGACCATCAT	CTGGAGATTGGGTCAGCACA
<i>Lepr</i>	TGGTCCCAGCAGCTATGGT	ACCCAGAGAAGTTAGCACTGT
<i>Ltf</i>	TGAGGCCCTTGGACTCTGT	ACCCACTTTTCTCATCTCGTTC
<i>Camp</i>	GCTGTGGCGGTCCTACTATCAC	TGTCTAGGGACTGCTGGTTGA
<i>Pgd</i>	ATGGCCCAAGCTGACATTG	GCACAGACCACAAATCCATGAT
<i>Pygb</i>	CCGCGACTACTTCTTCGCTC	CAACCCCAACTGATAAGTGGC
<i>Igkv17-127</i>	GGGGAACCTCCTAAGCTCCT	CTGGAGAATCGGGATGGGAC
<i>Angptl4</i>	CATCCTGGGACGAGATGAACT	TGACAAGCGTTACCACAGGC
<i>H2ac19</i>	ATAAAAGGGTGAGGCGTCGG	TTGTTGAGCTCCTCGTCGTT

<i>mt-Nd4l</i>	TCCATACCAATCCCCATCACC	ACGTAATCTGTTCCGTACGTGTT
<i>Rn7sk</i>	TCCATTGTAGGAGAACGTAGGG	AGCGCCTCATTTGGATGT
<i>Obp2a</i>	GACCTGGTGGATTACTCTGGG	TGAAAAGCGGTGTATTTGCCA
<i>Sult5a1</i>	ATGACTGAGCGCATGAACACC	CCACAAGTGACCCTCACAGA
<i>Capn8</i>	CTCTAACCAGAATGCTGTGAAGT	GTAGCCCAAAGCTGACGGA
<i>Rnase2a</i>	TGGAGCAACTTGAGTCTCGAC	CGGGGATAGGCTCTGTTATAGA
<i>18s</i>	AGGTCTGTGATGCCCTTAGA	GAATGGGGTTCAACGGGTTA

Supplementary Figures
Supplementary Figure 1.

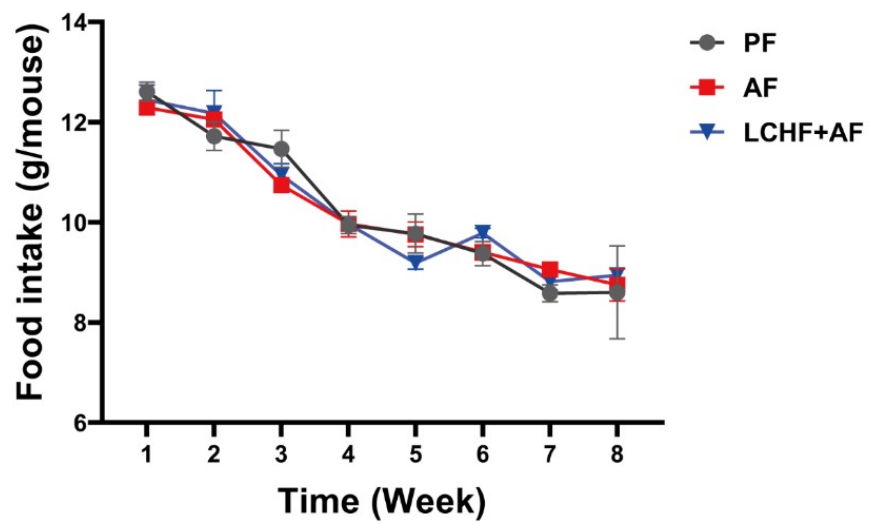


Figure S1. There is no statistic difference in food intake among the experimental groups. The daily food intake curve. Data are presented as means \pm SD ($n = 8$).

Supplementary Figure 2.

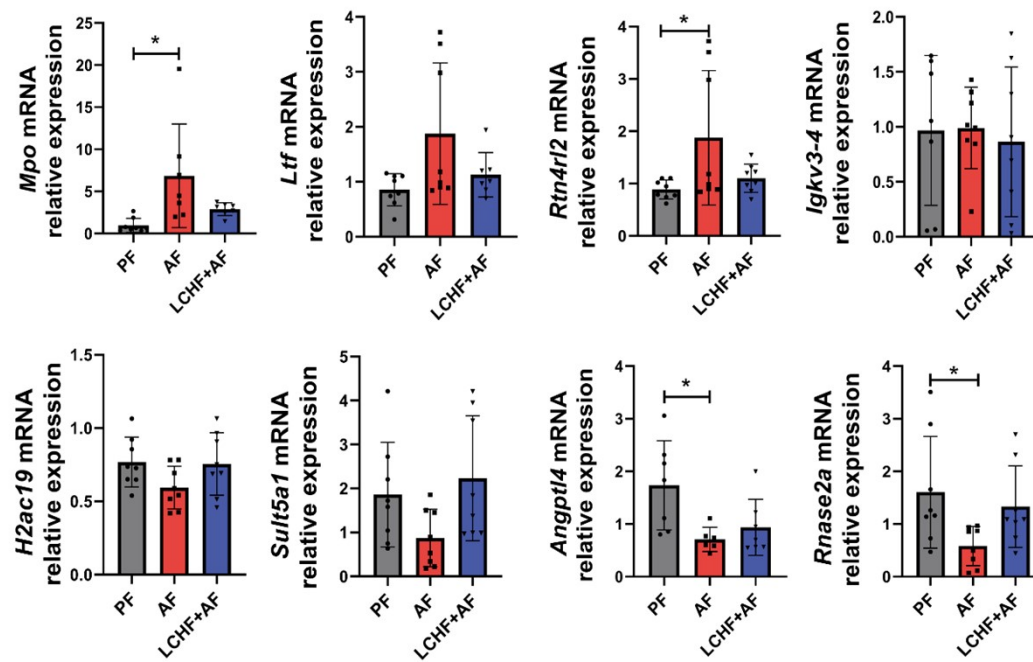


Figure S2. qPCR was employed to validate the differentially expressed genes in liver samples. The mRNA levels of *Mpo*, *Ltf*, *Rtn4r12*, *Igkv3-4*, *H2ac19*, *Igkv3-4*, *Sult5a*, *Angptl4*, and *Rnase2a*. Data are presented as means ± SD (n = 8). *P < 0.05 and **P < 0.01 indicate statistically significant.

Supplementary Figure 3.

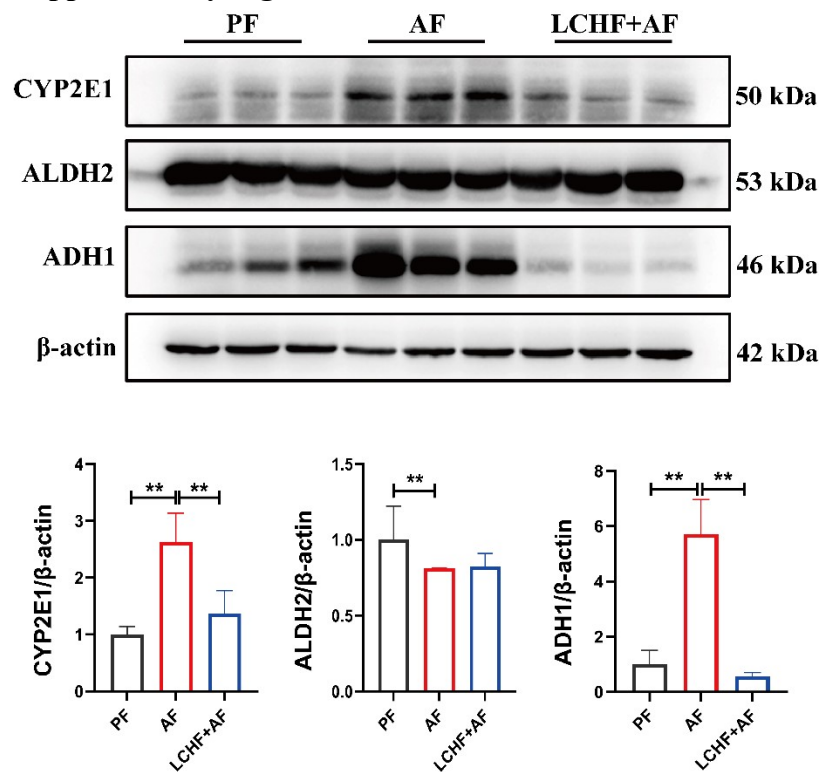


Figure S3. The LCHF dietary pattern improves the alcohol metabolism in mice. The expressions of CYP2E1, ALDH2, and ADH1 in mice liver were detected by Western-blot. Data are presented as means \pm SD ($n = 3$). * $P < 0.05$ and ** $P < 0.01$ indicate statistically significant.

Supplementary Figure 4.

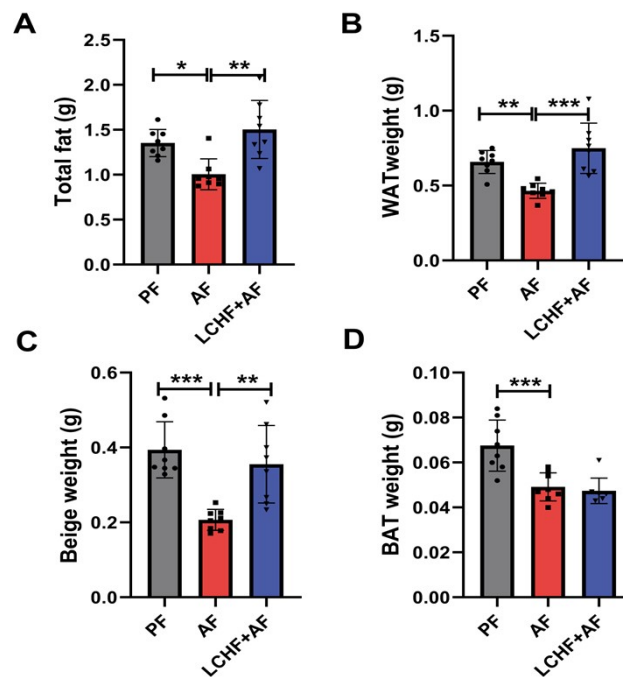


Figure S4. LCHF-diet rescued alcohol-induced adipose tissues loss. The weight of (A) Total fat weight, (B) White adipose tissue (WAT) weight, (C) Beige weight, (D) Brown adipose tissue (BAT) weight. Data are presented as means \pm SD (n = 8). * $P < 0.05$ and ** $P < 0.01$ indicate statistically significant.