

## Supplementary Table 2

The table includes all hepatic genes measured in the study. Statistical analysis with one-way ANOVA with Tukey's post hoc test.<sup>M</sup> indicates that the experiment was conducted with conventional qPCR, normalized to *Gapdh*. The statistical analysis for these 5 genes was done separate. Green indicates a P-value <0.05.

Protein name	Transcript	Chow vs control		FGF21 vs control		FGF21 vs chow	
		FC	P	FC	P	FC	P
ATP-binding cassette sub-family G member 5 / Sterolin-1	<i>Abcg5</i>	1,1	5,8E-01	<b>2,6</b>	3,0E-06	<b>2,3</b>	3,8E-05
ATP-binding cassette sub-family G member 8 / Sterolin-2	<i>Abcg8</i>	1,4	3,3E-01	<b>2,5</b>	1,5E-03	<b>1,9</b>	4,1E-02
Acetyl CoA carboxylase 1	<i>Acaca</i>	1,3	9,1E-02	<b>1,6</b>	4,5E-03	1,2	3,2E-01
Acetyl CoA carboxylase 2	<i>Acacb</i>	1,5	2,9E-01	1,1	8,5E-01	-1,3	6,5E-01
Acyl-CoA thioesterase 1	<i>Acot1</i>	-1,2	7,0E-01	-1,4	3,5E-01	-1,2	8,0E-01
Acetyl-CoA oxidase 1	<i>Acox1</i>	-1,1	8,3E-01	1,1	8,0E-01	1,1	4,9E-01
Disintegrin and metalloproteinase domain-containing protein 10	<i>Adam10</i>	-1,0	9,9E-01	1,0	9,9E-01	1,0	9,6E-01
Adiponectin receptor protein 2	<i>Adipor2</i>	1,2	2,4E-01	<b>1,7</b>	5,4E-05	<b>1,5</b>	3,0E-03
Alpha-2-HS-glycoprotein / Fetuin-A	<i>Ahsg</i>	1,1	7,8E-01	<b>2,3</b>	2,5E-05	<b>2,1</b>	1,5E-04
Apolipoprotein A1	<i>Apoa1</i>	1,0	1,0E+00	-1,2	4,2E-01	-1,2	4,2E-01
Apolipoprotein A4	<i>Apoa4</i>	<b>-4,5</b>	1,3E-05	<b>-2,9</b>	1,7E-03	1,5	2,9E-01
Beclin 1-associated autophagy-related key regulator / Autophagy-related protein 14	<i>Atg14</i>	1,2	4,0E-01	1,3	1,3E-01	1,1	7,2E-01
Ubiquitin-like-conjugating enzyme ATG3 / Autophagy-related protein 3	<i>Atg3</i>	1,1	4,2E-01	-1,3	7,3E-02	<b>-1,4</b>	6,2E-03
Adipose triglyceride lipase / Patanin-like phospholipase domain-containing protein 2	<i>Atgl (Pnlpa2)</i>	1,3	1,3E-01	<b>2,0</b>	6,4E-05	<b>1,6</b>	7,7E-03
Carbonyl reductase 1	<i>Cbr1</i>	1,1	7,9E-01	1,2	3,8E-01	1,1	7,6E-01
Fatty acid translocase	<i>Cd36</i>	<b>-1,9</b>	1,2E-02	<b>-2,1</b>	8,6E-03	-1,1	9,3E-01
Carbohydrate-responsive element-binding protein (CREBP)	<i>Chrebp (Mlxipl)</i>	1,5	3,1E-01	<b>5,3</b>	2,5E-05	<b>3,5</b>	9,9E-04
Cytochrome c oxidase subunit 7a1	<i>Cox7a1</i>	-1,1	5,8E-01	<b>-1,5</b>	1,7E-02	-1,3	1,3E-01
Carnitine palmitoyltransferase 1a, liver	<i>Cpt1a</i>	-1,1	6,7E-01	<b>2,2</b>	1,9E-04	<b>2,5</b>	3,6E-05
cAMP-responsive element-binding protein 3-like 3 (CREBH)	<i>Creb3l3 (Crebh)</i>	-1,1	7,4E-01	<b>1,9</b>	4,9E-03	<b>2,1</b>	1,1E-03
Cystein sulfinic acid decarboxylase	<i>Csad</i>	<b>2,9</b>	2,7E-03	1,6	3,1E-01	-1,8	1,4E-01
Cholesterol 7-alpha-monooxygenase	<i>Cyp7a1</i>	1,6	1,0E-01	<b>3,9</b>	2,3E-05	<b>2,4</b>	3,8E-03

Sterol 12-alpha-hydroxylase	<i>Cyp8b1</i>	1,4	6,8E-02	<b>2,5</b>	3,3E-05	<b>1,7</b>	8,5E-03
Diacylglycerol O-acyltransferase 2	<i>Dgat2</i>	-1,1	5,2E-01	1,3	6,4E-02	<b>1,4</b>	7,7E-03
Type I iodothyronine deiodinase	<i>Dio1</i>	<b>-1,7</b>	2,0E-02	-1,0	1,0E+00	<b>1,7</b>	4,1E-02
Epidermal growth factor receptor	<i>Egfr</i>	<b>2,6</b>	4,1E-02	<b>4,3</b>	3,0E-03	1,7	4,2E-01
Elongation of very long chain fatty acids protein 3	<i>Elovl3</i>	<b>1,8</b>	4,4E-02	<b>-3,6</b>	1,1E-04	<b>-6,5</b>	6,0E-07
Fatty acid synthase	<i>Fasn</i>	<b>1,9</b>	4,7E-02	1,6	1,8E-01	-1,1	8,6E-01
Fatty acid transport protein 2 / Very long-chain acyl-CoA synthetase	<i>Fatp2</i> ( <i>Slc27a2</i> )	1,1	7,6E-01	<b>2,2</b>	4,5E-06	<b>2,0</b>	3,0E-05
Fibroblast growth factor 21	<i>Fgf21</i>	<b>-2,3</b>	7,2E-03	<b>-2,2</b>	1,5E-02	1,0	9,9E-01
Fibroblast growth factor receptor 2	<i>Fgfr2</i>	1,2	6,1E-01	<b>2,3</b>	1,0E-04	<b>2,0</b>	1,1E-03
Fibroblast growth factor receptor 4	<i>Fgfr4</i>	1,0	9,8E-01	<b>2,6</b>	7,6E-05	<b>2,5</b>	1,5E-04
Forkhead box protein A2 / Hepatocyte nuclear factor 3-beta	<i>Foxa2</i> ( <i>Hnf3b</i> )	1,4	2,7E-01	<b>3,0</b>	2,9E-04	<b>2,1</b>	1,3E-02
Farnesoid X receptor / Bile acid receptor / Nuclear receptor subfamily 1, group H, member 4	<i>Fxr</i> ( <i>Bar</i> , <i>Nr1h4</i> )	1,1	4,5E-01	<b>1,9</b>	1,7E-06	<b>1,7</b>	3,4E-05
Glucose 6-phosphatase 3	<i>G6pc3</i>	-1,0	9,8E-01	<b>2,7</b>	3,1E-04	<b>2,8</b>	2,7E-04
Glucagon receptor	<i>Gcgr</i>	-1,1	9,1E-01	<b>2,1</b>	2,3E-04	<b>2,3</b>	1,2E-04
Glucokinase	<i>Gck</i>	-1,1	6,6E-01	<b>1,4</b>	2,9E-02	<b>1,6</b>	5,3E-03
Growth hormone receptor	<i>Ghr</i>	-1,1	7,4E-01	-1,3	1,0E-01	-1,2	3,4E-01
Glucose transporter type 2	<i>Glut2</i> ( <i>Slc2a2</i> )	1,1	4,8E-01	<b>1,5</b>	1,0E-02	1,3	1,2E-01
Glycerol-3-phosphate acyltransferase	<i>Gpam</i> ( <i>Gpat1</i> )	1,0	9,6E-01	1,3	3,2E-01	1,2	4,8E-01
Glycogen synthase	<i>Gys2</i>	-1,2	1,5E-01	1,1	6,9E-01	<b>1,3</b>	4,2E-02
HMG-CoA lyase	<i>Hmgcl<sup>M</sup></i>	-1,4	1,1E-01	<b>-2,0</b>	3,8E-04	<b>-1,5</b>	4,6E-02
HMG-CoA reductase	<i>Hmgcr</i>	<b>1,7</b>	3,1E-02	<b>3,8</b>	4,6E-06	<b>2,2</b>	2,7E-03
Hepatocyte nuclear factor 4-alpha	<i>Hnf4a</i>	1,1	8,4E-01	<b>2,4</b>	1,6E-05	<b>2,2</b>	7,3E-05
78 kDa glucose-regulated protein (GRP78)	<i>Hspa5</i>	1,1	7,4E-01	<b>1,7</b>	2,5E-03	<b>1,5</b>	1,6E-02
Insulin-like growth factor 1	<i>Igf1</i>	1,1	8,2E-01	-1,4	1,1E-01	<b>-1,5</b>	4,1E-02
Insulin-like growth factor-binding protein 1	<i>Igfbp1</i>	-1,3	6,2E-01	-1,8	1,8E-01	-1,4	6,1E-01
Insulin-like growth factor-binding protein 2	<i>Igfbp2</i>	<b>2,3</b>	1,2E-02	<b>9,5</b>	1,6E-07	<b>4,1</b>	2,0E-04
Insulin-like growth factor-binding protein 3	<i>Igfbp3</i>	-1,3	4,0E-01	-1,5	8,5E-02	-1,2	5,9E-01
Inhibitor of nuclear kappa-B kinase subunit epsilon	<i>Ikbke</i>	1,2	6,2E-01	<b>3,8</b>	1,0E-05	<b>3,1</b>	1,1E-04
Interleukin 18	<i>Il18</i>	-1,1	9,3E-01	<b>-3,5</b>	1,1E-03	<b>-3,2</b>	3,0E-03

Interleukin 1 beta	<i>Il1b</i>	-1,3	5,9E-01	1,2	7,3E-01	1,6	2,4E-01
Insulin-induced gene 2	<i>Insig2</i>	-1,2	8,1E-01	<b>-5,8</b>	1,8E-06	<b>-5,0</b>	9,4E-06
Insulin receptor	<i>Insr</i>	<b>1,7</b>	3,4E-02	<b>3,6</b>	6,6E-06	<b>2,2</b>	3,6E-03
Beta-klotho	<i>Klb</i>	1,2	1,0E-01	<b>1,4</b>	8,1E-03	1,1	4,1E-01
Neutrophil gelatinase-associated lipocalin / Lipocalin 2	<i>Lcn2 (Ngal)</i>	<b>-5,6</b>	1,1E-04	<b>-4,9</b>	6,3E-04	1,1	9,4E-01
Low-density lipoprotein receptor	<i>Ldlr</i>	1,1	8,1E-01	<b>3,1</b>	2,0E-05	<b>2,8</b>	1,1E-04
Leptin receptor isoform a	<i>Lepra<sup>M</sup></i>	1,2	4,8E-01	<b>2,9</b>	1,3E-05	<b>2,4</b>	2,4E-04
Leptin receptor, all transcript variants	<i>Lepr<sup>M</sup></i>	1,0	9,9E-01	<b>2,9</b>	1,3E-04	<b>2,9</b>	2,1E-04
Hepatic triacylglycerol lipase	<i>Lipc (Hpl)</i>	1,3	5,3E-02	<b>2,4</b>	2,9E-06	<b>1,7</b>	1,0E-03
Lipoprotein lipase	<i>Lpl</i>	<b>-1,5</b>	1,6E-02	1,3	1,4E-01	<b>1,9</b>	2,8E-04
Microtubule-associated proteins 1A-1B light chain 3B	<i>Map1lc3b (Lc3b)</i>	1,0	1,0E+00	<b>-1,7</b>	4,8E-03	<b>-1,7</b>	5,4E-03
Macrophage migration inhibitory factor	<i>Mif</i>	1,2	4,9E-01	1,1	9,4E-01	-1,1	7,5E-01
Mitochondrial pyruvate carrier 2	<i>Mpc2</i>	-1,1	9,3E-01	<b>-2,4</b>	5,0E-03	<b>-2,2</b>	1,3E-02
Microsomal triglyceride transfer protein	<i>Mttp</i>	<b>1,3</b>	4,8E-02	<b>2,2</b>	1,9E-06	<b>1,7</b>	6,9E-04
Nucleobindin-2 (cleaved to Nesfatin-1)	<i>Nucb2</i>	-1,1	8,3E-01	-1,1	6,4E-01	-1,0	9,3E-01
Purkinje cell protein 4-like protein 1	<i>Pcp4ll</i>	-1,6	7,0E-02	<b>2,2</b>	4,4E-03	<b>3,6</b>	2,9E-05
Proprotein convertase subtilisin/kexin type 9	<i>Pcsk9</i>	1,2	6,4E-01	<b>3,3</b>	6,7E-05	<b>2,7</b>	6,9E-04
Pyruvate dehydrogenase E1 component subunit b	<i>Pdhb</i>	-1,1	5,8E-01	<b>-1,6</b>	2,2E-03	<b>-1,4</b>	2,3E-02
Pyruvate dehydrogenase kinase isozyme 4	<i>Pdk4</i>	1,0	9,8E-01	-1,6	7,4E-02	-1,7	5,9E-02
Phosphoenolpyruvate carboxykinase	<i>Pepck (Pck1)</i>	1,2	5,8E-01	<b>1,9</b>	3,8E-03	<b>1,6</b>	3,8E-02
Pyruvate kinase	<i>Pklr</i>	1,1	7,2E-01	1,1	6,7E-01	1,0	9,9E-01
Peroxisome proliferator-activated receptor alpha	<i>Ppara</i>	<b>-1,2</b>	4,8E-02	<b>1,6</b>	1,7E-04	<b>1,9</b>	9,1E-07
Peroxisome proliferator-activated receptor gamma	<i>Pparg</i>	-1,2	6,7E-01	<b>-3,5</b>	1,0E-06	<b>-3,0</b>	9,4E-06
Peroxisome proliferator-activated receptor gamma co-activator 1a	<i>Ppargc1a</i>	1,1	8,4E-01	<b>2,1</b>	7,7E-05	<b>2,0</b>	3,6E-04
Protein phosphatase 1 regulatory subunit 3c	<i>Ppp1r3c</i>	1,2	6,6E-01	1,5	1,1E-01	1,3	4,2E-01
Tyrosine-protein phosphatase non-receptor type 1	<i>Ptp1b (Ptpn1)</i>	1,4	1,6E-01	<b>1,9</b>	2,3E-03	1,4	1,3E-01
Glycogen phosphorylase liver	<i>Pygl</i>	1,4	1,2E-01	<b>2,6</b>	1,1E-04	<b>1,8</b>	1,4E-02
Scavenger receptor class B member 1 (SR-B1)	<i>Scarb1</i>	1,1	9,1E-01	<b>3,4</b>	5,1E-07	<b>3,2</b>	1,7E-06
Stearoyl-CoA desaturase 1	<i>Scd1</i>	1,7	1,2E-01	<b>-5,3</b>	1,7E-05	<b>-9,3</b>	3,0E-07

NAD-dependent protein deacetylase sirtuin-1	<i>Sirt1</i>	1,2	4,1E-01	<b>2,1</b>	8,7E-06	<b>1,8</b>	2,1E-04
Suppressor of cytokine signaling-3	<i>Socs3</i>	<b>3,1</b>	2,5E-03	<b>5,2</b>	7,1E-05	1,7	2,4E-01
Sequestosome-1	<i>Sqstm1</i>	1,1	8,3E-01	1,5	6,6E-02	1,4	1,9E-01
Sterol regulatory element-binding protein 1	<i>Srebf1<sup>M</sup></i> ( <i>Srebp1</i> )	1,3	3,4E-01	<b>2,2</b>	4,5E-04	<b>1,7</b>	1,4E-02
Signal transducer and activator of transcription 3	<i>Stat3</i>	1,3	1,3E-01	1,4	1,0E-01	1,0	9,6E-01
Thyroid hormone receptor beta	<i>Thrb</i>	1,1	4,1E-01	<b>1,6</b>	6,0E-04	<b>1,4</b>	1,3E-02
Mitochondrial uncoupling protein 2	<i>Ucp2</i>	-1,3	6,3E-02	1,2	4,6E-01	<b>1,5</b>	7,2E-03
Cytochrome b-c1 complex subunit 6	<i>Uqcrc1</i>	-1,0	9,7E-01	<b>-1,6</b>	4,6E-02	-1,5	7,9E-02
Up-regulated during skeletal muscle growth 5	<i>Usmg5</i> ( <i>Dapit</i> )	-1,0	9,6E-01	<b>-1,7</b>	1,2E-02	<b>-1,7</b>	2,6E-02