

1 **Table S1.** Primer references for TaqMan® Gene Expression Assays (ThermoFisher)

Gene description	Assay ID	N° accession GenBank	Amplicon length
<i>Actb</i> (beta actin)	Rn00667869_m1	NM_031144.2	91
<i>Gapdh</i> (glyceraldehyde 3-phosphate dehydrogenase)	Rn01775763_g1	NC_005103.4	174
<i>Cnr1</i> (cannabinoid receptor type 1)	Rn02758689_s1	NM_012784.4	92
<i>Cnr2</i> (cannabinoid receptor type 2)	Rn03993699_s1	NM_001164142.1	102
<i>Napepld</i> (N-acyl phosphatidyl ethanolamine phospholipase D)	Rn01786262_m1	NM_199381.1	71
<i>Faah</i> (fatty acid amide hydrolase)	Rn00577086_m1	NM_024132.3	63
<i>Dagla</i> (diacylglycerol lipase, alpha)	Rn01454304_m1	NM_001005886.1	67
<i>Daglb</i> (diacylglycerol lipase, beta)	Rn01453770_m1	NM_001107120.1	57
<i>Mgll</i> (monoglyceride lipase)	Rn00593297_m1	NM_138502.2	78
<i>Chrebp</i> (carbohydrate-responsive element-binding protein, <i>Mlxip1</i>)	Rn00591943_m1	NM_133552.1	84
<i>Acaca</i> (acetyl-CoA carboxylase alpha)	Rn00573474_m1	NM_022193.1	60
<i>Fasn</i> (fatty acid synthase)	Rn01463550_m1	NM_017332.1	148
<i>Scd1</i> (stearoyl-Coenzyme A desaturase 1)	Rn00594894_g1	NM_139192.2	86
<i>Cpt1a</i> (carnitine palmitoyltransferase 1a, liver)	Rn00580702_m1	NM_031559.2	64
<i>Cpt1b</i> (carnitine palmitoyltransferase 1b, muscle)	Rn00682395_m1	NC_005106.4	83
<i>Acox1</i> (acyl-CoA oxidase 1, palmitoyl)	Rn01460628_m1	NM_017340.2	63
<i>Ppara</i> (peroxisome proliferator activated receptor alpha)	Rn00566193_m1	NM_013196.1	98
<i>Pparγ</i> (peroxisome proliferator activated receptor gamma)	Rn00440945_m1	NC_005103.4	105
<i>Srebp1</i> (sterol regulatory element binding transcription factor 1)	Rn01495769_m1	XM_213329.5	79
<i>Srebp2</i> (sterol regulatory element binding transcription factor 2)	Rn01502638_m1	NM_001033694.1	61
<i>Insig1</i> (insulin induced gene 1)	Rn00574380_m1	NM_022392.1	68
<i>Insig2</i> (insulin induced gene 2)	Rn00710111_m1	NM_178091.4	89
<i>Hmgcr</i> (3-hydroxy-3-methylglutaryl-CoA reductase)	Rn00565598_m1	NM_013134.2	71
<i>Ucp1</i> (uncoupling protein 1)	Rn00562126_m1	NM_001033694.1	69
<i>Cox4i1</i> (cytochrome c oxidase subunit 4 isoform 1)	Rn00665001_g1	NC_005118.4	72

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Table S2. Interaction and effects of prenatal diet and sex on the gene expression of relevant ECS components (see Figure 4)[†]

Hypothalamus	Interaction	Prenatal diet	Sex
<i>Cnr1</i>	ns	F(1,23)=11.82	ns
<i>Cnr2</i>	ns	F(1,23)=10.23	ns
<i>Napepld</i>	ns	ns	ns
<i>Faah</i>	ns	ns	ns
<i>Dagla</i>	ns	ns	ns
<i>Daglb</i>	ns	ns	ns
<i>Mgll</i>	ns	ns	F(1,23)=4.87
Liver	Interaction	Prenatal diet	Sex
<i>Cnr1</i>	F(1,22)=15.32	F(1,22)=19.73	F(1,22)=21.46
<i>Cnr2</i>	ns	ns	F(1,22)=28.77
<i>Napepld</i>	ns	F(1,21)=8.02	F(1,21)=5.53
<i>Faah</i>	ns	F(1,22)=7.40	F(1,22)=6.51
<i>Dagla</i>	ns	ns	ns
<i>Daglb</i>	ns	F(1,21)=5.05	ns
<i>Mgll</i>	F(1,22)=9.50	F(1,22)=20.88	(1,22)=22.23
PAT	Interaction	Prenatal diet	Sex
<i>Cnr1</i>	ns	ns	F(1,23)=5.62
<i>Cnr2</i>	ns	F(1,22)=5.04	F(1,22)=7.46
<i>Napepld</i>	ns	F(1,23)=13.67	ns
<i>Faah</i>	F(1,23)=6.92	F(1,23)=16.84	F(1,23)=8.69
<i>Dagla</i>	F(1,23)=5.87	F(1,23)=11.90	F(1,23)=16.86
<i>Daglb</i>	F(1,18)=7.73	F(1,18)=13.07	F(1,18)=9.76
<i>Mgll</i>	ns	F(1,22)=6.20	F(1,22)=6.06

[†]Two-way ANOVA

Table S3. Interaction and effects of prenatal diet and sex on the gene expression of relevant components and regulators of lipid and cholesterol metabolism (see Figure 5)[†]

Liver	Interaction	Prenatal diet	Sex
<i>Chrebp</i>	ns	ns	F(1,21)=8.96
<i>Acaca</i>	F(1,22)=22.48	F(1,22)=27.74	F(1,22)=19.50
<i>Fasn</i>	F(1,22)=5.35	F(1,22)=4.84	ns
<i>Scd1</i>	ns	ns	ns
<i>Cpt1a</i>	ns	F(1,21)=9.10	ns
<i>Acox1</i>	F(1,22)=4.58	F(1,22)=8.48	F(1,22)=5.06
<i>Srebf1</i>	ns	ns	F(1,22)=6.91
<i>Srebf2</i>	ns	ns	F(1,22)=6.90
<i>Insig1</i>	F(1,22)=28.23	F(1,22)=21.77	F(1,22)=15.08
<i>Insig2</i>	ns	ns	F(1,22)=6.24
<i>Hmgcr</i>	ns	F(1,21)=6.71	F(1,21)=6.19
PAT	Interaction	Prenatal diet	Sex
<i>Chrebp</i>	ns	F(1,23)=4.81	ns
<i>Acaca</i>	ns	ns	ns
<i>Fasn</i>	ns	ns	ns
<i>Scd1</i>	F(1,23)=10.03	F(1,23)=9.21	F(1,23)=8.77
<i>Cpt1b</i>	F(1,23)=24.07	F(1,23)=13.12	F(1,23)=28.66
<i>Acox1</i>	ns	F(1,23)=12.09	ns
<i>Ucp1</i>	ns	ns	ns
<i>Cox4i1</i>	ns	F(1,23)=18.83	F(1,23)=19.29

[†]Two-way ANOVA

21 **Table S4.** Interaction and effects of prenatal diet and sex on the gene expression of *Ppara* and
 22 *Ppar γ* (see Figure 6)[†]

Liver	Interaction	Prenatal diet	Sex
<i>Ppara</i>	F(1,22)=7.92	ns	F(1,22)=5.69
<i>Pparγ</i>	ns	F(1,22)=5.92	F(1,22)=19.88
PAT	Interaction	Prenatal diet	Sex
<i>Ppara</i>	ns	ns	ns
<i>Pparγ</i>	F(1,22)=9.42	F(1,22)=27.48	F(1,22)=17.89

23 [†]Two-way ANOVA