

Supplementary Materials

Table S1. Nucleotide sequences of primers used for PCR amplification

Gene	Forward primer (5' to 3')	Reverse primer (5' to 3')	Amplicon size (pb)
<i>β-actin</i>	GAAGCTGTGCTATGTTGCCC	GGATTCCATACCCAGGAAGG	184
<i>Gdil</i>	CCGCACAAGGCAAATACATC	GACTCTCTGAACCGTCATCAA	210
<i>Lepr</i>	AGCCAAACAAAAGCACCATT	TCCTGAGCCATCCAGTCTCT	174
<i>Socs3</i>	ACTGAGCCGACCTCTCTCCT	CCCCTCTGACCCTTTCTTTG	172
<i>Insr</i>	GTCCGGCGTTCATCAGAG	CTCCTGGGATTCATGCTGTT	242
<i>Npy</i>	TGGACTGACCCTCGCTCTAT	GTGTCTCAGGGCTGGATCTC	188
<i>Agrp</i>	AGAGTTCTCAGGTCTAAGTCT	CTTGAAGAAGCGGCAGTAGCACGT	210
<i>Bdnf</i>	ATTAGCGAGTGGGTCACAGC	CGAGTTCCAGTGCCTTTTGT	189
<i>Pomc</i>	CCTGTGAAGGTGTACCCCAATGTC	CACGTTCTTGATGATGGCGTTC	266
<i>Cart</i>	AGAAGAAGTACGGCCAAGTCC	CACACAGCTTCCCGATCC	84
<i>Mc4r</i>	TATGGTACTGGAGCGCGTAA	TCAGACGGAGGATGCTATGA	370
<i>Lrp11</i>	ACAGACGACCACGCCATT	CCTGGGAAGCACAGTCACA	198
<i>Gls</i>	GGAGGGAAGGTTGCTGATTA	AGGACTGAAGACAAAAGGGAAC	133
<i>Ucp2</i>	GGTCGGAGATACCAGAGCAC	ATGAGGTTGGCTTTCAGGAG	173
<i>Npc1</i>	GCCGATTACCACACGCACTT	AACACAAGCCACACGGGAACAG	122

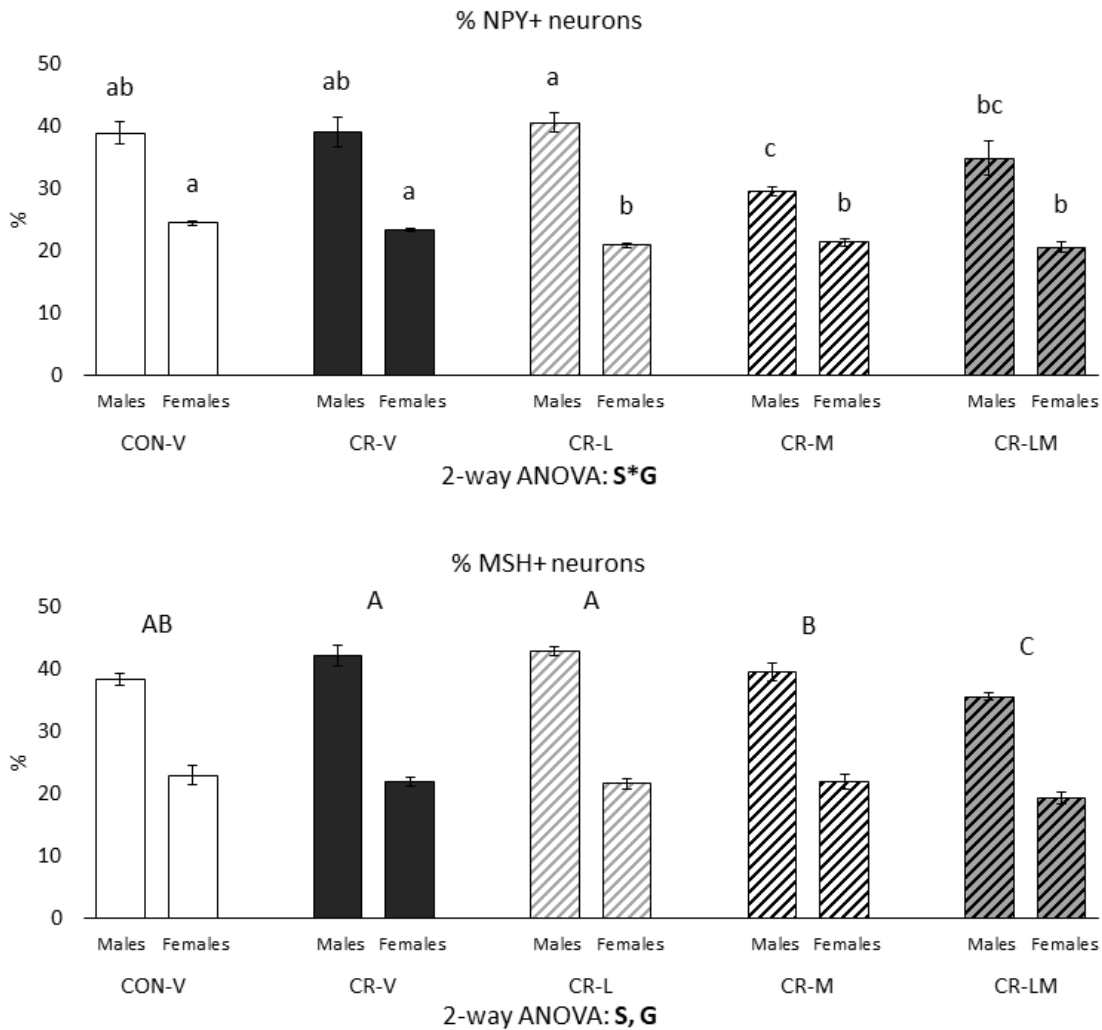
Table S2. Daily amounts of supplemented leptin and myo-inositol from day 1 to day 20 of lactation

Day of lactation	Leptin (ng) ¹	Myo-inositol (mg) ²
1	1.0	0.43
2	2.0	0.85
3	3.0	1.28
4	4.0	1.70
5	5.0	2.13
6	6.3	2.67
7	7.5	3.20
8	8.8	3.73
9	10.0	4.26
19	11.3	4.80
11	15.6	5.33
12	17.2	5.86
13	18.8	6.39
14	20.3	6.93
15	21.9	7.46
16	23.5	7.99
17	25.0	8.52
18	26.6	9.06
19	39.4	9.59
20	43.8	10.12

¹ Picó, C.; Oliver, P.; Sánchez, J.; Miralles, O.; Caimari, A.; Priego, T.; Palou, A. The intake of physiological doses of leptin during lactation in rats prevents obesity in later life. *Int J Obes (Lond)*. **2007**, *31*(8), 1199-209.

² Castillo, P.; Palou, M.; Otero, D.; Núñez, P.; Palou, A.; Picó, C. Sex-specific Effects of Myo-inositol Ingested During Lactation in the Improvement of Metabolic Health in Adult Rats. *Mol Nutr Food Res*. **2021**, *65*(11), e2000965.

Figure S1. Percentage of NPY and α MSH positive neurons in the arcuate nucleus of the hypothalamus



Percentage of NPY and α MSH positive (NPY+ and α MSH+) neurons in the arcuate nucleus of the hypothalamus of 25-day-old male and female offspring of control (CON) and 25% gestational calorie-restricted (CR) dams. Data are means \pm s.e.m (n=4-6). Statistics: Two-way ANOVA was performed to assess the effects of sex and group (CON-V, CR-V, CR-L, CR-M and CR-LM). One-way ANOVA was carried out to determine differences between groups in each sex separately, when previous two-way ANOVA showed interactive effect between sex and group. ANOVA was followed by a least significant difference (LSD) post-hoc test. Symbols: S, effect of sex; G, effect of group; S*G, interactive effect between sex and group; A \neq B \neq C (P<0.05, two-way ANOVA); a \neq b \neq c (P<0.05, one-way ANOVA). Abbreviations: vehicle (V), leptin (L), myo-inositol (M), leptin and myo-inositol (LM).