

Supplemental Data

Maternal Magnesium Deficiency in Mice Leads to Maternal Metabolic Dysfunction and Altered Lipid Metabolism with Fetal Growth Restriction

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Supplementary Table S1. Primers for genes with GenBank accession numbers and Roche Universal Probe numbers used for assessing mRNA expression in mouse livers by qRT-PCR.

Gene	Primer	Sequence 5' - 3'	Accession Number ^A (Probe Number)
<i>Acaca</i>	Forward	TCTGGCTGCATCCATTATGT	NM_133360.2 (1)
	Reverse	TATCACACAGCCAGGGTCAA	
<i>Chrebp (Mlxipl)</i>	Forward	GGCCTGGCTGGAACAGTA	NM_021455.3 (108)
	Reverse	CGAAGGGAATTCAGGACAGT	
<i>D5d (Fadsd5)</i>	Forward	AACATGCACCCCCCTCTTCTT	NM_146094.2 (60)
	Reverse	TGGTTGTATGGCATGTGCTT	
<i>D6d (Fads2)</i>	Forward	ATTCGGGAGAAGATGCTACG	NM_019699.1 (97)
	Reverse	AAGAACTTGCCCACGAAAGTC	
<i>D9d (Scd1)</i>	Forward	TCCCTCCTGCAAGCTCTAC	NM_005063.4 (34)
	Reverse	CAGAGCGCTGGTCATGTAGT	
<i>Elovl1, v1</i>	Forward	CCCTGAGAAGAAGGGAGGAG	NM_001039175.2 (51)
	Reverse	TCCATCCTGGCTAAGGACTC	
<i>Elovl1, v2, v3</i>	Forward	GGCCCTGATCCCTTTGAA	NM_001039175.2 (74)
	Reverse	CCATCCTGGCTAAGGACTCA	
<i>Elovl2</i>	Forward	AACTTGCAAGTGCAGAATCTCG	NM_019423.2 (2)
	Reverse	ACCACAAGACCTTGGCTACC	
<i>Elovl4, v1, v2</i>	Forward	ACGACACCGTGGAGTTCTATC	NM_148941.2 (85)
	Reverse	GCGGCCAGTCTGCTACAC	
<i>Elovl5</i>	Forward	GTCCTCCATCCCCTCCAT	NM_134255.3 (31)
	Reverse	CTGGATGATTGTCAGCACAAA	
<i>Elovl6</i>	Forward	CAGCAAAGCACCCGAACTA	NM_130450.2 (4)
	Reverse	AGGAGCACAGTGATGTGGTG	
<i>Fasn</i>	Forward	GCTGCTGTTGGAAGTCAGC	NM_007988.3 (58)
	Reverse	AGTGTTTCCTCGGAGTG	
<i>Hprt1</i>	Forward	TCCCTCAGACCGCTTTT	NM_013556.2 (95)
	Reverse	CCTGGTTCATCATCGCTAATC	
<i>Srebf1</i>	Forward	GGTTTTGAACGACATCGAAGA	NM_011480.3 (78)
	Reverse	CGGGAAGTCACTGTCTTGGT	

Forward and reverse primers and specific Roche Universal Library probes for determining mRNA expression levels for the indicated mouse genes by qRT-PCR.

^ANational Center for Biotechnology Information (NCBI) EntrezGene (<http://www.ncbi.nlm.nih.gov/gene>). v, variant.

Mg DEFICIENCY IN PREGNANCY ALTERS METABOLISM

Supplementary Table S2. Cytokine and chemokine profiles in mouse maternal plasma, fetal plasma, amniotic fluid, and maternal and fetal livers following control or Mg-deficient diets.

	Maternal plasma		Fetal plasma		Amniotic fluid	
	Control pg/mL	Mg-deficient pg/mL	Control pg/mL	Mg-deficient pg/mL	Control pg/mL	Mg-deficient pg/mL
CXCL1	1700 ± 548.6	1808 ± 511.3	4946 ± 539.2	4678 ± 551.0	1974 ± 1575	2355 ± 1253
IFN γ	7.17 ± 3.67	5.22 ± 1.89	1.18 ± 1.16	0.53 ± 0.61	3.25 ± 4.36	1.72 ± 2.58
IL-1 β	8.13 ± 5.95	11.05 ± 8.57	7.26 ± 6.54	9.92 ± 5.52	7.26 ± 6.54	9.92 ± 5.52
IL-6	76.8 ± 46.8	100.4 ± 76.6	183.2 ± 84.0	222.6 ± 62.1	456.0 ± 161.5	688.2 ± 345.8
IL-10	65.5 ± 18.4	68.8 ± 14.8	65.5 ± 18.4	68.8 ± 14.8	212.4 ± 97.8	209.4 ± 87.7
IL-12p70	141.8 ± 102.7	239.7 ± 135.3	33.8 ± 48.5	ND	ND	ND
TNF	0.89 ± 2.61	1.18 ± 3.27	ND	ND	ND	ND

	Maternal liver		Fetal liver	
	Control pg/g	Mg-deficient pg/g	Control pg/g	Mg-deficient pg/g
CXCL1	2577 ± 911	1695 ± 871.4	10062 ± 2186	11499 ± 2939
IFN γ	29.2 ± 25.2	17.1 ± 26.4	ND	ND
IL-1 β	566.4 ± 208	674.9 ± 283.9	956 ± 280	1271 ± 446
IL-6	308.5 ± 353.9	139.0 ± 247.5	ND	ND
IL-10	ND	ND	ND	ND
IL-12p70	277.6 ± 479.3	334.8 ± 734	ND	ND
TNF	ND	ND	ND	ND

Values are means ± SD, n = 9-10 per group. No significant differences were observed between control and Mg-deficient samples. CXCL1, CXC-motif ligand 1; ND, not detected.