

Supplementary table 1 Primer sequences used in qRT-PCR.

	Primer sequence	
LEP	Forward	5'GGAACCTGTGCGGATTCTT3'
	Reverse	5'GGAGACTGACTGCGTGTGT3'
LEPR	Forward	5'TGAGGTATCATAGGAGCAGCC3'
	Reverse	5'GGAAGGACACATGTTGGTGGA3'
GCH1	Forward	5'ATGCAGTTCTTCACCAAGGG3'
	Reverse	5'TCCTTCACAATCACCATCTCA3'
IGFBP1*	Forward	5'AAGGCACAGGAGACATCAG3'
	Reverse	5'TGTCTCACACTGTCTGCTG3'
KCTD2	Forward	5'TTGTGCGGCTGGTTAAGGAA3'
	Reverse	5'CGATGCTGATGAGCTGTTCG3'
TRADD	Forward	5'CTGCGAAATCTGAAGTGC GG3'
	Reverse	5'CTCAGCGGCCGATTCACTAC3'
LRP2	Forward	5'ACGGGACTGTGAGATGAGGA3'
	Reverse	5'TGGCAGTATGCACCATCAGG3'
CPXM2	Forward	5'CAACATCCAGGC GGGCATT A3'
	Reverse	5'TGGCTGTCATTGCTACC AT3'
PAPP-A	Forward	5'TTTGGCTCCGGGCGTATT T T3'
	Reverse	5'TGGTCTCCTGCTTTGGTCC3'
CLDN1	Forward	5'GTGCTT GGAAGACGATGAGGT3'
	Reverse	5'GCCAGACCTGCAAGAAGAAAT3'

Supplementary table 2 Up-regulated and down-regulated genes in FGR.

Gene Symbol	Fold-change (FGR)	p-value (FGR)	Fold-Change (Macrosomia)	p-value (Macrosomia)	Gene Symbol	Fold-Change (FGR)	p-value (FGR)	Fold-Change (Macrosomia)	p-value (Macrosomia)
Down-regulated					Up-regulated				
MUTED/TXND5	-7.2	0.02	-1.3	0.73	CPXM2	6.2	<0.01	2.0	0.16
AREG	-3.7	0.01	-1.6	0.24	RAB3B	5.6	0.02	2.3	0.15
LRRKIP1	-3.6	<0.001	-1.3	0.20	GNGT1	5.6	0.01	3.3	0.02
LRP2	-3.4	<0.01	-1.8	0.07	HERC2P2	4.3	0.04	2.4	0.17
FAM46C	-3.2	0.01	-2.3	0.04	CLDN1	4.2	0.01	2.9	0.04
FRAS1	-3.1	<0.01	-1.6	0.07	SH3TC2	3.9	0.01	3.5	0.01
HLA-DPB1	-3.0	0.05	-2.1	0.12	ST3GAL1	3.5	0.01	2.2	0.06
SIPA1L2	-3.0	0.01	-1.6	0.18	ZNF117	3.4	0.02	3.0	0.02
ENPEP	-3.0	<0.01	-1.3	0.19	C11orf90	3.3	0.04	1.9	0.20
FCGR3A	-2.9	0.03	-1.5	0.30	MUC1	3.3	0.01	1.0	0.92
PPFIBP1	-2.8	<0.01	-1.4	0.15	FGF12	3.2	0.02	2.2	0.06
PTPRB	-2.8	<0.01	-1.9	0.02	LOC388948	3.2	0.03	2.7	0.04
TMEM97	-2.8	<0.01	-1.5	0.09	TRPV6	3.1	0.02	2.3	0.06
EGR1	-2.8	0.05	-1.3	0.59	NIPAL1	3.1	0.04	2.2	0.11
ADAMTS19	-2.7	<0.01	-1.1	0.70	MUC15	3.1	0.04	2.1	0.11
SOX4	-2.7	0.04	-1.5	0.30	ARHGEF37	3.1	0.04	1.6	0.33
SPATS2	-2.7	0.01	-1.4	0.24	FHL1	3.0	0.05	1.5	0.41
GCH1	-2.7	0.02	-2.3	0.03	CD200	3.0	0.05	1.8	0.23
MAD2L1	-2.7	0.03	-1.3	0.44	RAB6B	3.0	0.05	1.4	0.43
MTHFD2	-2.6	0.02	-1.3	0.36	SLC2A11	2.9	0.05	2.1	0.12
ITGA6	-2.6	0.02	-1.3	0.43	RAB11FIP5	2.9	0.04	1.5	0.33
CHN1	-2.6	0.03	-1.4	0.35	AFF1	2.9	0.02	1.9	0.08
TNFSF10	-2.6	0.01	-1.4	0.18	FRZB	2.9	0.04	2.6	0.04
GPD1L	-2.5	0.02	-1.7	0.13	FAM47E	2.9	0.05	2.0	0.14
PLK2	-2.5	0.02	-1.5	0.18	AHR	2.9	0.02	1.7	0.18
BIN2	-2.5	0.01	-1.6	0.12	PAPPA	2.9	0.02	2.0	0.07

MAL2	-2.5	0.01	-1.4	0.26	HSD11B2	2.9	0.05	2.2	0.09
KIAA0101	-2.5	0.02	-1.4	0.28	STEAP4	2.8	0.03	1.5	0.29
JAG1	-2.5	0.04	-1.8	0.12	TRAJ17	2.8	0.02	1.5	0.26
ATP7B	-2.5	0.02	-1.1	0.69	MORN3	2.8	0.05	1.4	0.40
ADAMTS18	-2.4	0.04	-1.1	0.73	STAT5B	2.7	0.03	1.8	0.14
VLDLR	-2.4	0.04	-1.4	0.35	FURIN	2.7	0.02	1.7	0.12
CCNG1	-2.4	0.01	-1.4	0.21	PLAC4	2.7	0.03	2.2	0.05
C9orf5	-2.4	0.01	-1.3	0.36	PHLDB2	2.7	0.05	2.2	0.08
CCNA2	-2.4	0.02	-1.1	0.63	SLC43A2	2.7	<0.01	1.8	0.01
CARD8	-2.4	0.02	-1.4	0.28	TMEM54	2.7	0.01	1.2	0.44
NUSAP1	-2.4	0.02	-1.1	0.74	SCNN1B	2.7	0.03	1.4	0.41
NNT	-2.4	0.04	-1.3	0.43	MMP11	2.7	0.04	1.9	0.11
ZC3HAV1L	-2.4	0.01	-1.3	0.27	ERBB2	2.7	0.04	1.7	0.21
SOX7	-2.4	0.02	-1.7	0.10	HIST1H1C	2.6	0.04	1.7	0.17
TYMS	-2.4	0.01	-1.4	0.27	CAPN6	2.6	0.01	1.5	0.22
ALDH7A1	-2.4	0.01	-1.4	0.23	SLC7A5	2.6	0.05	1.5	0.29
RRM2	-2.4	0.01	-1.4	0.17	IGHA1	2.6	0.04	1.6	0.22
PPP1R3D	-2.4	0.02	-1.5	0.15	C2orf72	2.6	0.05	1.8	0.15
RECK	-2.4	0.01	-1.4	0.22	SLC23A2	2.6	0.04	1.8	0.13
PHYH	-2.4	0.03	-1.6	0.17	CORO6	2.5	0.02	1.6	0.15
MEST	-2.3	0.01	-1.4	0.19	DUSP4	2.5	0.01	1.6	0.14
ANXA3	-2.3	0.01	-1.4	0.19	ELF3	2.5	0.03	1.5	0.25
C3orf58	-2.3	0.03	-1.2	0.51	KIR2DL1	2.5	0.03	1.4	0.30
RSAD2	-2.3	<0.01	-1.8	0.01	STRA6	2.5	0.05	1.9	0.13
PSMD7	-2.3	0.03	-1.6	0.15	PCDH1	2.5	0.02	1.4	0.28
SLC2A14	-2.3	0.05	-1.7	0.14	ITPRIP	2.5	0.02	1.5	0.21
FAM117B	-2.3	0.01	-1.2	0.39	PAPPA2	2.5	0.04	1.0	0.90
PMVK	-2.3	0.01	-1.3	0.24	TTBK2	2.5	0.02	1.5	0.18
CTNNB1	-2.3	0.01	-1.8	0.03	BLID	2.5	0.01	1.7	0.06
SH3YL1	-2.3	<0.01	-1.2	0.28	KIAA1549	2.5	0.01	1.1	0.81

TCF7L2	-2.3	0.04	-1.3	0.41	PLEKHA6	2.5	0.05	1.6	0.25
PRCP	-2.3	0.05	-1.4	0.32	KMO	2.4	0.05	2.1	0.07
ABHD2	-2.3	0.02	-1.5	0.20	ZNF703	2.4	0.02	1.3	0.38
YWHAQ	-2.3	0.02	-1.5	0.14	ARHGAP26	2.4	0.02	1.3	0.39
F5	-2.3	0.02	-1.5	0.17	GFPT2	2.4	0.01	1.5	0.12
ERG	-2.3	0.01	-1.9	0.04	AIM1L	2.4	0.04	2.1	0.06
BHLHE41	-2.3	0.03	1.1	0.81	RAP1GAP	2.4	0.01	1.6	0.07
HHEX	-2.2	0.03	-1.5	0.20	SH2D5	2.4	0.01	1.8	0.06
GFRA2	-2.2	0.02	-2.3	0.01	MALAT1	2.4	0.04	2.4	0.02
FOXP1	-2.2	<0.01	-1.3	0.23	BMP1	2.4	0.03	1.8	0.07
ZAK	-2.2	0.01	1.0	0.87	FBLN1	2.4	0.03	1.3	0.47
ATP8B1	-2.2	0.01	-1.2	0.53	ARTN	2.4	0.01	1.8	0.03
RACGAP1	-2.2	0.03	-1.2	0.51	IGHA2	2.4	0.03	1.5	0.19
CCNYL1	-2.2	0.01	-1.2	0.46	SLC7A8	2.4	0.03	1.7	0.11
TSPAN4	-2.2	0.03	-1.6	0.13	SPOCK1	2.3	0.04	1.5	0.23
HPS3	-2.2	<0.01	-1.5	0.03	TMEM229B	2.3	<0.01	1.4	0.18
EIF4E3	-2.2	0.05	-1.2	0.62	ADAMTS3	2.3	0.02	1.4	0.29
COL21A1	-2.2	0.02	-1.0	0.98	VGLL3	2.3	0.02	1.7	0.10
SLC16A12	-2.2	<0.01	-1.1	0.63	LRP8	2.3	0.03	1.5	0.21
ETS1	-2.2	0.01	-1.4	0.20	INSIG1	2.3	0.03	-1.1	0.70
GATM	-2.2	0.02	-1.2	0.51	USP15	2.3	0.01	2.0	0.02
EIF4B	-2.2	0.01	-1.9	0.03	CHCHD10	2.3	0.01	1.6	0.09
LGR5	-2.2	<0.01	-1.1	0.58	SLC6A2	2.3	0.03	1.3	0.38
SLC35D1	-2.2	0.03	-1.1	0.68	TREM1	2.2	0.02	1.3	0.43
RPS6P6	-2.2	0.01	-1.1	0.64	USP16	2.2	0.02	2.4	0.01
AIDA	-2.2	0.01	-1.3	0.36	ANKDD1A	2.2	0.01	1.8	0.02
NFE2L3	-2.2	<0.01	-1.1	0.67	DAPK1	2.2	0.04	1.6	0.17
DOCK9	-2.2	0.01	-1.2	0.40	BCL2	2.2	0.01	1.5	0.12
BAG2	-2.2	0.03	-1.2	0.46	ST5	2.2	0.01	1.7	0.07
MBNL1	-2.2	0.02	1.1	0.63	HIST2H2BE	2.2	0.03	1.8	0.06

TBX2	-2.2	0.01	-1.4	0.12	PDXDC1	2.2	0.02	1.5	0.13
LILRB4	-2.2	0.03	-1.5	0.18	SNORA32	2.2	0.04	1.9	0.06
CYP2J2	-2.2	0.01	-1.5	0.13	PRLR	2.2	0.04	1.9	0.05
CNKSRS3	-2.2	0.05	-1.5	0.24	ZNF554	2.2	0.03	2.3	0.01
CTSS	-2.2	0.03	-1.4	0.24	TMPRSS3	2.2	0.01	1.3	0.24
GLO1	-2.2	0.01	-1.4	0.23	C4orf19	2.2	0.02	1.5	0.12
FLI1	-2.2	0.04	-1.4	0.29	NR2C2	2.2	0.03	1.3	0.31
BCAT1	-2.2	0.02	1.1	0.67	GPC3	2.2	0.03	1.5	0.17
CDKN3	-2.2	<0.01	-1.1	0.63	KAZ	2.2	0.04	1.5	0.23
SPTBN1	-2.2	0.05	-1.7	0.13	SLC7A1	2.1	0.04	1.3	0.45
FZD5	-2.2	0.03	-1.2	0.57	NAB2	2.1	0.01	1.3	0.31
PLA2G2A	-2.2	0.04	-1.6	0.14	XKRX	2.1	0.03	1.3	0.35
NEURL1B	-2.2	0.04	-1.8	0.08	LIMS1	2.1	0.01	1.1	0.55
SLFN5	-2.2	0.02	-1.2	0.42	PIK3C2B	2.1	<0.01	1.4	0.12
PSMG1	-2.2	0.02	-1.4	0.25	TMEM108	2.1	0.02	1.2	0.42
HIP1	-2.2	0.03	-1.6	0.13	IGHG1	2.1	0.02	1.2	0.53
HIF3A	-2.2	0.02	-1.7	0.07	CPEB4	2.1	0.02	1.6	0.10
KLHDC10	-2.2	0.04	-1.3	0.37	CPZ	2.1	0.05	1.7	0.11
ITGB8	-2.2	0.02	1.3	0.33	TFPI	2.1	0.02	1.5	0.12
ARHGAP44	-2.2	<0.01	-1.5	0.06	VWA5A	2.1	<0.01	1.4	0.07
RCBTB2	-2.2	0.01	-1.2	0.44	SPIRE2	2.1	0.01	1.5	0.08
KCTD12	-2.2	0.05	-1.3	0.47	CNGA1	2.1	0.02	1.1	0.64
CPOX	-2.1	0.01	-1.4	0.14	HIST1H2BD	2.1	0.05	1.5	0.23
TM7SF3	-2.1	0.01	-1.4	0.17	CTAG2	2.1	0.02	1.1	0.65
GPR37	-2.1	0.04	-1.5	0.20	UNC13D	2.1	<0.01	1.4	0.08
RGL1	-2.1	0.04	-1.4	0.33	DAB2IP	2.1	<0.01	1.3	0.11
PPP3R1	-2.1	0.01	-1.4	0.10	EGFR	2.1	0.01	1.4	0.18
MET	-2.1	0.02	-1.2	0.43	EFS	2.1	0.01	1.3	0.25
RPA2	-2.1	0.03	-1.2	0.52	IGDCC4	2.1	0.04	1.4	0.30
COL14A1	-2.1	0.03	-1.1	0.66	SIN3B	2.1	0.01	1.8	0.01

GIMAP8	-2.1	0.02	-1.4	0.19		NEB	2.1	0.01	1.4	0.16
SPTAN1	-2.1	0.02	-1.5	0.13		MAFK	2.1	0.02	1.4	0.14
OAT	-2.1	0.02	-1.2	0.48		ZDBF2	2.1	0.02	1.5	0.11
ETS2	-2.1	0.04	-1.4	0.23		FER1L4	2.1	0.04	2.2	0.01
ABR	-2.1	0.04	-1.5	0.22		TGM2	2.1	0.05	1.4	0.26
FGFR2	-2.1	0.04	-1.0	0.95		TRIM62	2.1	<0.01	1.5	0.03
DENND4C	-2.1	0.01	-1.3	0.29		DPEP2	2.0	<0.01	1.5	0.04
LAP3	-2.1	0.04	-1.5	0.21		PAK3	2.0	0.02	1.5	0.14
YEATS2	-2.1	0.01	-1.2	0.39		MAN1C1	2.0	0.04	1.2	0.56
TMCC3	-2.1	0.03	-1.2	0.60		TMEM136	2.0	<0.01	1.5	0.02
HOMER1	-2.1	0.02	-1.0	0.86		CYBASC3	2.0	0.01	1.3	0.21
TP63	-2.1	0.02	-1.1	0.75		HDAC5	2.0	0.02	1.5	0.14
SLC35B4	-2.1	0.01	-1.2	0.32		NOTCH2	2.0	0.01	1.2	0.37
AGA	-2.1	<0.01	-1.5	0.02		SGMS2	2.0	0.03	1.4	0.22
DTL	-2.1	0.03	-1.2	0.43		IL1R1	2.0	0.03	1.6	0.10
C7orf23	-2.1	0.02	-1.1	0.65		DAGLB	2.0	0.03	1.2	0.43
CMPK2	-2.1	0.03	-1.5	0.16		TCL6	2.0	0.04	1.5	0.15
CCNB1	-2.1	0.03	-1.4	0.27		POU2F3	2.0	0.01	1.3	0.16
NUP35	-2.1	<0.01	-1.5	0.04		CD99L2	2.0	0.03	1.3	0.37
PARP1	-2.1	0.04	-1.4	0.31		STK17A	2.0	0.01	1.0	0.91
FNBP1L	-2.1	0.02	-1.1	0.68		AICDA	2.0	0.05	1.6	0.13
PEG3	-2.1	0.01	-1.3	0.20		MICAL1	2.0	<0.01	1.8	0.01
C14orf147	-2.1	<0.01	-1.4	0.01		DNMT3A	2.0	<0.01	1.7	<0.01
GIMAP4	-2.1	0.02	-1.5	0.12						
CDCA7	-2.1	<0.01	-1.1	0.70						
NID2	-2.1	0.04	-1.3	0.33						
MYCN	-2.1	0.04	-1.3	0.40						
CRNDE	-2.1	0.03	1.3	0.34						
FOS	-2.1	0.02	-1.2	0.58						
HS6ST2	-2.1	<0.01	1.1	0.68						

CSTA	-2.1	0.03	1.1	0.81
DCAF16	-2.1	0.01	-1.2	0.51
SHCBP1	-2.1	0.02	-1.5	0.13
IKBIP	-2.1	0.01	-1.0	0.94
APH1B	-2.1	0.03	-1.3	0.33
CDC42SE2	-2.1	0.02	-1.3	0.35
HACE1	-2.1	0.01	-1.3	0.22
LANCL1	-2.1	0.02	-1.0	0.89
LTA4H	-2.1	0.01	-1.4	0.13
EFEMP1	-2.1	<0.01	1.0	0.89
RNFT1	-2.1	0.02	-1.2	0.57
NPL	-2.1	0.04	-1.1	0.70
CDK1	-2.1	0.04	-1.2	0.60
SPIN4	-2.0	0.01	-1.7	0.04
NUP37	-2.0	<0.01	-1.4	0.09
MARVELD3	-2.0	0.04	-1.3	0.35
ZNRF3	-2.0	0.05	-1.2	0.52
HMGB1	-2.0	0.01	-1.2	0.43
NID1	-2.0	0.04	-1.1	0.79
KCTD9	-2.0	0.01	-1.2	0.42
ARRDC4	-2.0	0.02	-1.5	0.14
LIMS1	-2.0	0.02	-1.6	0.07
PCYOX1	-2.0	0.01	-1.2	0.30
OAS1	-2.0	<0.01	-1.7	0.01
OSBPL9	-2.0	0.01	-1.0	0.84
DPYSL2	-2.0	0.04	-1.5	0.20
E2F5	-2.0	0.04	-1.3	0.32
WARS	-2.0	0.04	-1.9	0.05
PMAIP1	-2.0	<0.01	1.0	0.80
GALNTL2	-2.0	0.02	-1.3	0.32

ROBO1	-2.0	0.03	1.0	1.00
KIT	-2.0	0.01	-1.6	0.04
SNX7	-2.0	0.03	-1.4	0.18
ANLN	-2.0	0.02	1.1	0.84
RNASEH2A	-2.0	0.02	-1.3	0.36
MARS2	-2.0	0.03	-1.5	0.19
CAB39L	-2.0	0.03	-1.2	0.39
FAM49B	-2.0	0.02	-1.1	0.65
SAMD4A	-2.0	0.03	-1.0	0.90
RP2	-2.0	0.01	-1.2	0.50
IDH1	-2.0	0.03	-1.2	0.44
SLC27A2	-2.0	0.03	-1.2	0.46
LBR	-2.0	0.01	-1.2	0.50
AGTR1	-2.0	0.04	-1.3	0.36
FGFR3	-2.0	0.04	-1.2	0.52
EPSTI1	-2.0	<0.01	-1.4	0.05
GBP4	-2.0	0.01	-1.7	0.02
ACSL1	-2.0	0.02	-1.4	0.16
DDX3X	-2.0	0.01	-1.6	0.03
ENAH	-2.0	0.03	1.2	0.44
KIF23	-2.0	0.02	1.0	0.97
SLC25A33	-2.0	<0.01	-1.3	0.03
SLC16A1	-2.0	0.02	-1.5	0.1

Supplementary table 3 Up-regulated and down-regulated genes in macrosomia.

Gene Symbol	Fold-change (Macrosomia)	p-value (Macrosomia)	Fold- Change (FGR)	p-value (FGR)	Gene Symbol	Fold-change (Macrosomia)	p-value (Macrosomia)	Fold- Change (FGR)	p-value (FGR)
<i>Down-regulated</i>									
LEP	-6.5	0.01	4.3	0.07	PHLDB2	3.5	0.02	2.4	0.12
COL17A1	-4.3	0.05	-1.8	0.46	SH3TC2	3.5	0.01	3.9	0.01
HTRA4	-3.1	0.02	-2.0	0.17	GNGT1	3.3	0.02	5.6	0.01
BTNL9	-2.9	0.02	-2.5	0.07	C15orf29	3.1	<0.01	2.0	0.08
HLA-DPB1	-2.4	0.03	-1.9	0.12	ZNF117	3.1	0.01	2.6	0.04
FAM46C	-2.3	0.04	-3.2	0.01	CLDN1	2.9	0.04	4.2	0.01
GFRA2	-2.3	0.01	-2.2	0.02	LPHN3	2.7	0.03	2.4	0.06
GCH1	-2.3	0.03	-2.7	0.02	LOC388948	2.7	0.04	3.2	0.03
SIGLEC6	-2.0	0.06	1.0	0.9	FRZB	2.6	0.04	2.9	0.04
<i>Up-regulated</i>									
					FAM164A	2.6	0.01	1.4	0.25
					C10orf118	2.5	0.05	2.1	0.13
					USP16	2.4	0.01	2.2	0.02
					GOLGA4	2.4	0.03	1.9	0.15
					MALAT1	2.4	0.03	2.4	0.04
					FGF7	2.4	0.02	1.6	0.22
					C14orf106	2.3	0.03	1.4	0.42
					SMC3	2.3	0.01	1.6	0.12
					ZNF554	2.3	0.01	2.2	0.03
					DEPDC1B	2.2	0.05	2.2	0.08
					FER1L4	2.2	0.01	2.1	0.04
					STRA6	2.2	0.05	2.5	0.04
					PPIG	2.2	0.04	1.3	0.44
					CASP4	2.1	0.03	1.2	0.60
					DST	2.1	0.02	1.3	0.40
					ATRX	2.1	0.03	1.5	0.31

GABRE	2.1	0.01	1.9	0.02
ISM1	2.1	0.01	1.4	0.19
ZNF644	2.1	<0.01	1.7	0.03
PHIP	2.1	0.02	1.4	0.26
USP15	2.0	0.02	2.3	0.01
GCC2	2.0	0.02	1.7	0.08
SMC4	2.0	0.03	1.0	0.98
