

Supplementary Figures captions:

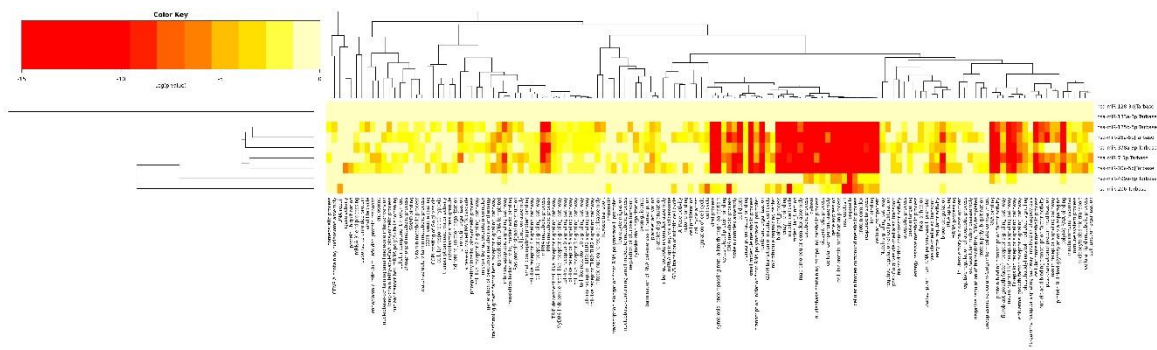


Figure S1. The identified Gene Ontology biological processes related to miRNAs up-regulated in pigs with higher muscle mass in the Hampshire breed (DIANA-miRPath v3. 0).

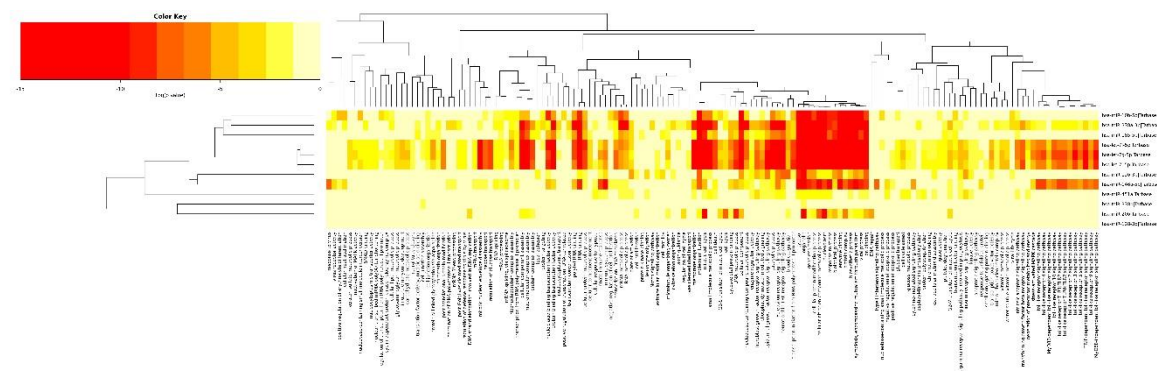


Figure S2. The identified Gene Ontology biological processes related to miRNAs up-regulated in pigs with higher muscle mass in the Hampshire breed (DIANA-miRPath v3. 0).

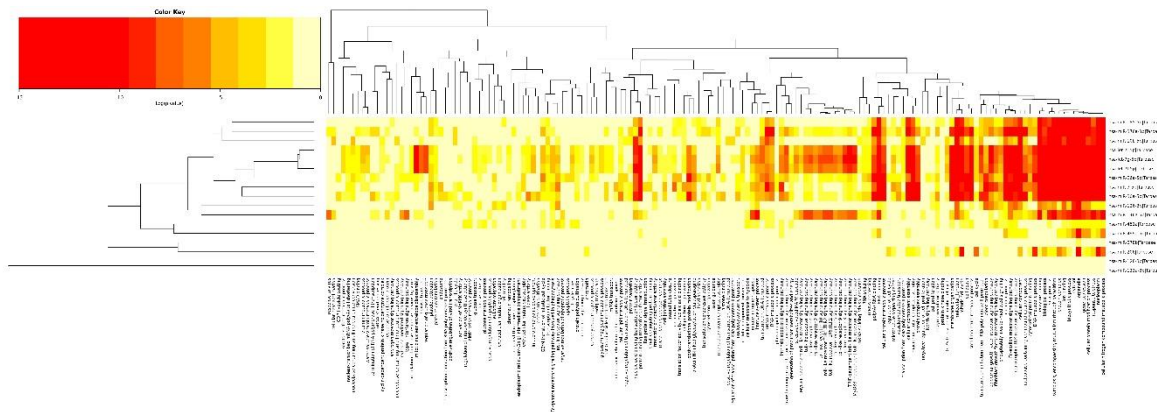


Figure S3. The identified Gene Ontology biological processes related to miRNAs up-regulated in pigs with higher muscle mass in Piertrain breed (DIANA-miRPath v3. 0).

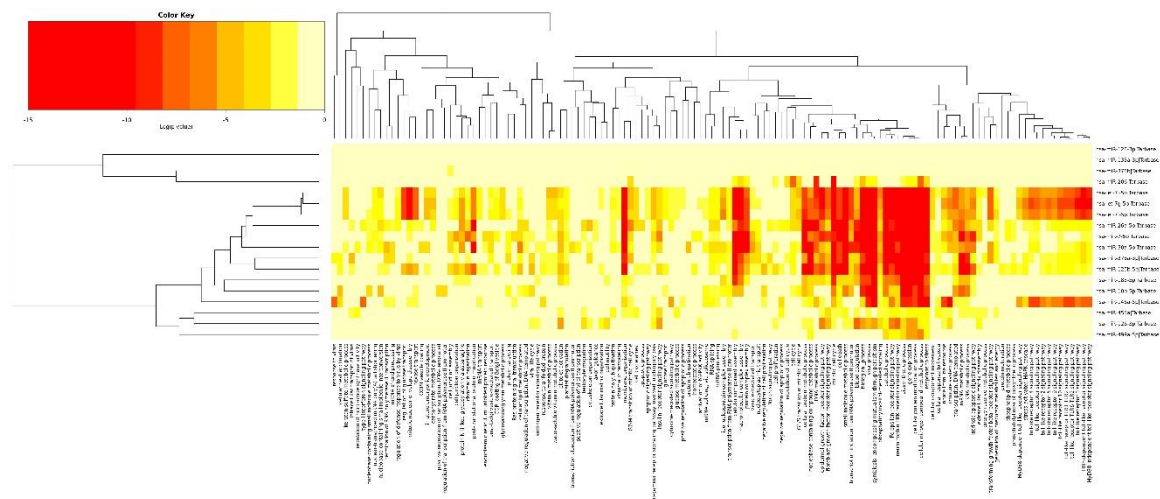


Figure S4. The identified Gene Ontology biological processes related to miRNAs down-regulated in pigs with higher muscle mass in Piertrain breed (DIANA-miRPath v3. 0).

Table S2. The details of differentially expressed genes and miRNAs selected to validation of NGS results.

Genes				
Gene symbol	Gene name	Accession number	Primers	Amplification length (bp)
<i>MGP</i>	Matrix Gla Protein; Cell Growth-Inhibiting Gene 36 Protein	ENSSSCG00000000606	F AGACCCTGAGAGCAACCTC A R GGAGGCTTGTTGAGTTCTC G	224
<i>BBS2</i>	Biedl-Bardet- Syndrome 2	ENSSSCG000000025417	F TGTGGCTCAACCAGAACTT T R GGAAATCCGCTTCTACCTG A	225
<i>PCOLCE</i>	Procollagen C-Endopeptidase Enhancer	ENSSSCG000000027466	F CCTCTCCACCCACTGACAC T R TGGATAAGAAAGGGGTGC CTA	261
<i>COL6A1</i>	Collagen Type VI Alpha 1 Chain	ENSSSCG000000022506	F GCAACCTGGTGTGGAACG R CTTTGATGCCAGGTGCTT	312
<i>TBX2</i>	T-Box 2	ENSSSCG000000027060	F AGATCGACAACAACCCGTT T R CAGGGGACTAGGCGCTGT	209

XPO1 Exportin 1 ENSSSCG000000 28228 F TCACAATCAAGTGAATGGT ACAGA R TTCCAGTGAGCTCTTAAAA ATCG 241

miRNAs			
miRBase ID	miRBase ID (Sus Scrofa)	miRBase Accession #	TaqMan Assay ID
hsa-miR-126-3p	ssc-miR-126-3p	MIMAT0018378 (pig)	477887_mir
hsa-miR-378a-3p	ssc-miR-378	MIMAT0013868 (pig)	478349_mir
hsa-let-7g-5p	ssc-let-7g	MIMAT0013867 (pig)	478580_mir
hsa-miR-30a-5p	ssc-miR-30a-5p	MIMAT0010193 (pig)	479448_mir
hsa-miR-451a	ssc-miR-451	MIMAT0018382 (pig)	478107_mir
hsa-miR-125b-5p	ssc-miR-125b	MIMAT0002120 (pig)	477885_mir
hsa-miR-7-5p	ssc-miR-7	MIMAT0000252 (human)	478341_mir
hsa-miR-499a-5p	ssc-miR-499-5p	MIMAT0013877 (pig)	478139_mir
hsa-miR-103a-3p	ssc-miR-103	MIMAT0002154 (pig)	478253_mir
hsa-miR-20a-5p	ssc-miR-20a	MIMAT0000075 (human)	478586_mir

Table S1. The 43 DEGs identified in both breeds between groups differing in meat content.

Gene Accession number	Gene symbol	Hp FC	adj pval	Pi FC	adj pval
ENSSSCG00000017674	<i>MED13</i>	-2.39	5.94E-11	-1.39	0.002140
ENSSSCG00000015311	<i>CYP51</i>	-2.27	5.24E-08	-1.41	0.007487
ENSSSCG00000006066	<i>RNF19A</i>	-2.10	1.84E-10	-1.31	0.006446

ENSSSCG0000007830	<i>RBBP6</i>	-2.06	6.78E-12	-1.25	0.033282
ENSSSCG00000028035	<i>ZC3H11A</i>	-2.04	5.09E-12	-1.24	0.038055
ENSSSCG0000009061	<i>NAA15</i>	-2.03	3.68E-12	-1.23	0.025751
ENSSSCG00000028228	<i>protein_coding</i>	-1.93	4.62E-06	-1.30	0.014457
ENSSSCG00000011332	<i>SETD2</i>	-1.87	3.00E-09	-1.27	0.016705
ENSSSCG00000003670	<i>RLF</i>	-1.80	3.23E-06	-1.25	0.045695
ENSSSCG00000022419	<i>FEM1B</i>	-1.74	2.50E-05	-1.25	0.031716
ENSSSCG00000008487	<i>ATL2</i>	-1.72	7.57E-06	-1.34	0.013031
ENSSSCG00000004103	<i>PCMT1</i>	-1.46	0.002628	-1.26	0.039723
ENSSSCG00000026934	<i>PIGX</i>	-1.27	0.24488	-1.36	0.021497
ENSSSCG00000026182	<i>protein_coding</i>	1.14	0.646066	1.54	0.003136
ENSSSCG00000014565	<i>protein_coding</i>	1.16	0.582601	1.34	0.048292
ENSSSCG00000029147	<i>protein_coding</i>	1.29	0.356686	1.41	9.87E-07
ENSSSCG00000017428	<i>JUP</i>	1.31	0.134578	1.39	0.025119
ENSSSCG00000027946	<i>MVP</i>	1.32	0.033742	1.53	0.002281
ENSSSCG00000025417	<i>BBS2</i>	1.37	0.127142	1.35	0.022786
ENSSSCG00000008349	<i>CNRIP1</i>	1.42	0.020235	1.42	0.001871
ENSSSCG00000022506	<i>COL6A1</i>	1.46	0.17294	1.37	0.032944
ENSSSCG00000003201	<i>ATF5</i>	1.51	0.041036	1.54	0.003205
ENSSSCG00000011129	<i>ITIH5</i>	1.67	0.000236	1.38	0.011175
ENSSSCG00000028022	<i>COL6A2</i>	1.71	0.05198	1.36	0.029189
ENSSSCG00000026631	<i>SLC25A6</i>	1.73	2.74E-06	1.35	0.028352
ENSSSCG00000027060	<i>TBX2</i>	1.73	0.004374	1.39	0.026113
ENSSSCG00000026084	<i>MFSD7</i>	1.74	0.000551	1.41	0.019689
ENSSSCG00000012953	<i>YIF1A</i>	1.77	6.74E-08	1.33	0.038407
ENSSSCG00000000033	<i>BZRP</i>	1.82	0.03506	1.45	0.008436
ENSSSCG00000013901	<i>IFI30</i>	1.82	0.025505	1.37	0.035551
ENSSSCG00000022246	<i>ICOSLG</i>	1.83	0.001045	1.39	0.017888
ENSSSCG00000013622	<i>TMEM205</i>	1.83	2.45E-05	1.38	0.022633
ENSSSCG00000009668	<i>CLU</i>	1.92	0.000132	1.45	0.008532
ENSSSCG00000008508	<i>FAM98A</i>	1.95	2.27E-07	1.22	0.042541
ENSSSCG00000000675	<i>C1R</i>	1.99	3.56E-06	1.39	0.004673
ENSSSCG00000022236	<i>protein_coding</i>	2.01	0.008151	1.53	0.003243
ENSSSCG00000000606	<i>MGP</i>	2.04	0.008139	1.30	0.029075
ENSSSCG00000013074	<i>RAB3IL1</i>	2.16	5.39E-05	1.59	0.001274
ENSSSCG00000027466	<i>PCOLCE</i>	2.23	0.001512	1.27	0.033010
ENSSSCG00000013181	<i>SERPING1</i>	2.38	6.82E-07	1.27	0.029674
ENSSSCG00000012841	<i>ATGL</i>	2.39	6.54E-08	1.40	0.013320
ENSSSCG00000006276	<i>CEBPD</i>	2.57	3.62E-10	1.38	0.023386
ENSSSCG00000014834	<i>UCP3</i>	2.73	3.76E-09	1.68	0.000316

Hp – Hampshire; Pi – Pietrain; FC – fold change obtained for DEGs between different phenotypic groups in each breed