

Table S1: Primer design for qPCR.

Genes	Sequence (5'-3')	Product Size (Bp)	Annealing Temp. (°c)	Accession Number	Reference
<i>ACTB</i>	FW: TCGCACTTCATGATCGAGTTG RV: CGACGGCCAGGTCATCAC	138	60	AY550069	[1]
<i>HSPCB</i>	FW: GGCAGAAAGACAAGGAGAAC RV: CAGACTGGGAGGTATGGTAG	131	56	AF288819	[2]
<i>RPL19</i>	FW: GCTTGCCTCCAGTGTCC RV: GTTGGCGTTGGCGATTT	82	62	AF435591	[2]
<i>TOP2B</i>	FW: AACTGGATGATGCTAATGATGCT RV: TGGAAAACTCCGTATCTGTCTC	137	56	NM_001258386.1	[2]
<i>ACACA</i>	FW: TCCCAGTGCAAGCAGTATG RV: TGCCAATCCACACGAAGAC	211	60	EF618729	[3]
<i>ACLY</i>	FW: GAGGCAGCATCGAAACTTCAC RV: GGTCTTCCCAACTTCTCCCATC	170	55	NM_001105302.1	[4]
<i>ADIPOQ</i>	FW: CGTTCAGCATTGAGTGTGG RV: TCATTCAATGTTGTGGTAGAGA	178	55	NM214370	[5]
<i>ELOVL6</i>	FW: AGAACACGTAGCGACTCCGAAGAT RV: GACATGCCGACCGCCAAAGATAA	177	60	XM_013978957.1	[6]
<i>FASN</i>	FW: GCAGGCGCGTGATGGGAATGGTG RV: GCCCAGAGCCCGAGTGGATGAGCA	206	58	NM_001099930	[6]
<i>FBXO32</i>	FW: TCACAGCTCACATCCCTGAG RV: GACTTGCCGACTCTCTGGAC	167	56	NM_001044588.1	[7]
<i>LEP</i>	FW: GGCCCTATCTGTCCTACGTTGAAG RV: TGGAAGGCAGACTGGTGAGGAT	237	60	NM_213840.1	[6]
<i>MAP3K14</i>	FW: ATGTGACCCATCAAGCTTCC RV: CACCACACAGGGATTACAG	140	60	XM_003131321.4	-
<i>ME1</i>	FW: GCCGGCTTTATCCTCCTCT RV: TCAAGTTTGGTCTGTATTTTCTGG	223	55	XM_001924333.5	[6]
<i>MYH3</i>	FW: GGGAGCAGAAGAAGAACACG RV: AGGACTTGACCTTCGCTTGA	150	51	XM_013981330.2	-
<i>MYH7</i>	FW: GGTATCGCATCCTGAACCC RV: GCCCTGCCTTGAAGAACAC	144	51	NM_213855.2	[8]
<i>SCD</i>	FW: CCGCCCTGAAATGAAAGATGAC RV: GTAGGCAAACGCCAGAGCAAG	184	60	NM_213781.1	[4]
<i>TNNT1</i>	FW: GGTCAAGGCAGAACAGAAGC RV: ATCCAATCCGACAGTTCCT	147	58	NM_213748.2	-
<i>WDR91</i>	FW: GTCCGCGAGTACTTGCTCTT RV: CCACAATCTTGTCACCCGA	106	60	XM_003134652.6	-

1. Guo, X.; Tang, R.; Wang, W.; Liu, D.; Wang, K. Effects of dietary protein/carbohydrate ratio on fat deposition and gene expression of peroxisome proliferator activated receptor γ and heart fatty acid-binding protein of finishing pigs. *Livestock Science* **2011**, *140*, 111-116, doi:<http://dx.doi.org/10.1016/j.livsci.2011.02.016>.
2. Gu, Y.R.; Li, M.Z.; Zhang, K.; Chen, L.; Jiang, A.A.; Wang, J.Y.; Li, X.W. Evaluation of endogenous control genes for gene expression studies across multiple tissues and in the specific sets of fat- and muscle-type samples of the pig. *Journal of Animal Breeding and Genetics* **2011**, *128*, 319-325, doi:10.1111/j.1439-0388.2011.00920.x.
3. Tan, B.; Yin, Y.; Liu, Z.; Tang, W.; Xu, H.; Kong, X.; Li, X.; Yao, K.; Gu, W.; Smith, S.B., et al. Dietary L-arginine supplementation differentially regulates expression of lipid-metabolic genes in porcine adipose tissue and skeletal muscle. *The Journal of Nutritional Biochemistry* **2011**, *22*, 441-445, doi:10.1016/j.jnutbio.2010.03.012.
4. Gao, Y.; Zhang, Y.H.; Jiang, H.; Xiao, S.Q.; Wang, S.; Ma, Q.; Sun, G.J.; Li, F.J.; Deng, Q.; Dai, L.S., et al. Detection of differentially expressed genes in the longissimus dorsi of Northeastern Indigenous and Large White pigs. *Genet. Mol. Res.* **2010**, *10*, 779-791.
5. Weber, T.E.; Kerr, B.J.; Spurlock, M.E. Regulation of hepatic peroxisome proliferator-activated receptor alpha expression but not adiponectin by dietary protein in finishing pigs. *Journal of Animal Physiology and Animal Nutrition* **2008**, *92*, 569-577.
6. Benítez, R.; Fernández, A.; Isabel, B.; Núñez, Y.; Mercado, E.D.; Gómez-Izquierdo, E.; García-Casco, J.; López-Bote, C.; Óvilo, C. Modulatory Effects of Breed, Feeding Status, and Diet on Adipogenic, Lipogenic, and Lipolytic Gene Expression in Growing Iberian and Duroc Pigs. *International Journal of Molecular Sciences* **2018**, *19*, 22, doi:10.3390/ijms19010022.
7. Liu, Y.; Wang, X.; Leng, W.; Pi, D.; Tu, Z.; Zhu, H.; Shi, H.; Li, S.; Hou, Y.; Hu, C.A. Aspartate inhibits LPS-induced MAFbx and MuRF1 expression in skeletal muscle in weaned pigs by regulating Akt, AMPK α and FOXO1. *Innate immunity* **2017**, *23*, 34-43, doi:10.1177/1753425916673443.
8. Chen, X.; Guo, Y.; Jia, G.; Zhao, H.; Liu, G.; Huang, Z. Arginine Promotes Slow Myosin Heavy Chain Expression via Akt1 and the AMP-Activated Protein Kinase Signaling Pathway in Porcine Skeletal Muscle Satellite Cells. *J Agric Food Chem* **2018**, *66*, 4734-4740, doi:10.1021/acs.jafc.8b00775.