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Supplemental Table S2. Comparative Imprinting in Selected Mammalian Species.

Gene Symbol or Transcriptional Unit	Imprinting Status*						Expressed Allele in Swine	Evidence of Imprinting in Swine
	Human	Mouse	Cow	Marsupial	Mono-treme	Pig		
AMPD3	NI	I	NR	NR	NR	I (PD)	M	Array
APEG3	PD	I	PD	NR	NR	I (PD)	P	Array
ASB4	NR	I	NI (PD)	NI	NR	NI	Biallelic	QUASEP
ASCL2	CD	I	NR	NR	NR	NI (PD)	Biallelic	Array
CALCR	PD	I	NR	NR	NR	NI	Biallelic	QUASEP
CD81	NI	I	NI (PD)	NR	NR	NI	Biallelic	Array, QUASEP
CDKN1C	I	I	NR	NI	NR	I (PD)	M	Array
COMMD1	NI	I	NR	NR	NR	NI (PD)	Biallelic	Array
COPG2	CD	I	NI	NR	NR	I (PD)	M	Array
DCN	NI	PD	NI	NR	NR	NI	M	Array, QUASEP
DHCR7	NI	I	NR	NR	NR	I (PD)	M	Array
DIRAS3	PD	NO	NR	NR	NR	I	P	Ref [2], Array, QUASEP
DLK1	I	I	NR	NI	I	I	P	Ref [3] QUASEP
DLX5	CD	CD	NR	NR	NR	CD	M	Ref [4], Array
H13	NR	I	NR	NR	NR	NI (PD)	Biallelic	Array
H19	I	I	I	I	NR	I	M	Ref [6], Array, QUASEP
HTR2A	NI/CD	I	NI (PD)	NR	NR	NI	Biallelic	QUASEP
IGF2	I	I	I	I	NI	I	P	Ref [7] Array, QUASEP, sq-RT-PCR
IGF2AS	I	I	NR	NR	NR	I	P	Ref [8], Array, QUASEP,

								sq-RT-PCR
IGF2R	PI	I	I	I	NI	I	M	Ref [9], Array
INPP5F	I	I	NR	NR	NR	I/CD	P	QUASEP. sq-RT-PCR
MEG3	I	I	I	NO	NR	I	M	Ref [10], Array
MEST	I	I	NR	I	NR	I	P	Ref [11], Array, QUASEP
NAP1L5	I	I	I	NR	NR	I	P	Array
NDN	I	I	NR	NR	NR	I (PD)	P	Array
NNAT	I	I	I	NR	NR	I	P	Ref [2], QUASEP
OSBPL1A	I	NR	NR	NR	NR	I (PD)	M	Array
PEG10	I	I	I	I	NO	I	P	Ref [12], Array, QUASEP
PEG3	I	I	I	NR	NR	I (PD)	P	Array, sq-RT-PCR
PHLDA2	I	I	NR	NR	NR	PI	M	Array, QUASEP
PLAGL1	I	I	NR	NR	NR	I	P	Ref [5], Array, QUASEP, sq-RT-PCR
PON2	NR	PD	NR	NR	NR	I (PD)	M	Array
PPP1R9A	I	I	NR	NI	NR	I (PD)	M	sq-RT-PCR
PRIM2	I	NR	NR	NR	NR	I (PD)	M	Array
SGCE	I	I	NR	NI	NR	I	P	Array, QUASEP, sq-RT-PCR
SLC22A3	PI	I	NR	NR	NR	I (PD)	M	Array
SLC38A4	NR	I	NI	NR	NR	I (PD)	M/P	Array, sq-RT-PCR
SNORD107	I	I	NR	NR	NR	I	P	Array, QUASEP
SNRPN	I	I	NR	NR	NR	I (PD)	P	Array, sq-RT-PCR

TFPI2	PI	I	NR	NR	NR	I (PD)	M	Array

I = imprinted
NI = not imprinted
CD = conflicting data
PD = provisional data
PI = polymorphic imprinting/ tissue-specific imprinting
NR = no reports of imprinting status
M = maternal allele
P = paternal allele
Array = microarray expression profiling
sq-RT-PCR = semi-quantitative reverse-transcription PCR of biparental versus parthenogentic fetal tissues
Ref = references

*Data to construct this table for comparative mammalian imprinting status was retrieved from Morison et al 2005 [1].

REFERENCES USED IN SUPPLEMENTAL DATA

1. Morison IM, Ramsay JP, Spencer HG. A census of mammalian imprinting. Trends Genet 2005; 21: 457-465.
2. Cheng HC, Zhang FW, Deng CY, Jiang CD, Xiong YZ, Li FE, Lei MG. *NNAT* and *DIRAS3* genes are paternally expressed in pigs. Genet Sel Evol 2007; 39: 599-607.
3. Kim KS, Kim JJ, Dekkers JC, Rothschild MF. Polar overdominant inheritance of a *DLK1* polymorphism is associated with growth and fatness in pigs. Mamm Genome 2004; 15: 552-559.
4. Cheng HC, Zhang FW, Jiang CD, Li FE, Xiong YZ, Deng CY. Isolation and imprinting analysis of the porcine *DLX5* gene and its association with carcass traits. Anim Genet 2008; 39: 395-399.
5. Zhang FW, Cheng HC, Jiang CD, Deng CY, Xiong YZ, Li FE, Lei MG. Imprinted status of pleomorphic adenoma gene-like I and paternal expression gene 10 genes in pigs. J Anim Sci 2007; 85: 886-890.
6. Li C, Bin Y, Curchoe C, Yang L, Feng D, Jiang Q, O'Neill M, Tian XC, Zhang S. Genetic imprinting of *H19* and *IGF2* in domestic pigs (Sus scrofa). Anim Biotechnol 2008; 19: 22-27.
7. Nezer C, Moreau L, Brouwers B, Coppieters W, Detilleux J, Hanset R, Karim L, Kvasz A, Leroy P, Georges M. An imprinted QTL with major effect on muscle mass and fat deposition maps to the *IGF2* locus in pigs. Nat Genet 1999; 21: 155-156.
8. Braunschweig MH, Van Laere AS, Buys N, Andersson L, Andersson G. IGF2 antisense transcript expression in porcine postnatal muscle is affected by a quantitative trait nucleotide in intron 3. Genomics 2004; 84: 1021-1029.
9. Killian JK, Nolan CM, Wylie AA, Li T, Vu TH, Hoffman AR, Jirtle RL. Divergent evolution in *M6P/IGF2R* imprinting from the Jurassic to the Quaternary. Hum Mol Genet 2001; 10: 1721-1728.

10. Li XP, Do KT, Kim JJ, Huang J, Zhao SH, Lee Y, Rothschild MF, Lee CK, Kim KS. Molecular characteristics of the porcine *DLK1* and *MEG3* genes. Anim Genet 2008; 39: 189-192.
11. Xu C, Su L, Zhou Q, Li C, Zhao S. Imprinting analysis of the porcine *MEST* gene in 75 and 90 day placentas and prenatal tissues. Acta Biochim Biophys Sin (Shanghai) 2007; 39: 633-639.
12. Zhou QY, Huang JN, Xiong YZ, Zhao SH. Imprinting analyses of the porcine *GATM* and *PEG10* genes in placentas on days 75 and 90 of gestation. Genes Genet Syst 2007; 82: 265-269.