

Supplemental Table 1. The sequence of primer pairs for real-time RT-PCR, the expected size of the amplicon, the annealing temperature, and Genbank accession number.

Gene	Forward	Reverse	Size of amplicon	Annealing temperature	Genbank accession number
mouse <i>FHL2</i>	5'- CACCGACTGCTATTCCAACG -3'	5'- GTGAAGCGTTGCCAGATAG -3'	142 bp	51°C	NM_010212
mouse <i>LDHA</i>	5'- TGTCTCCAGCAAAGACTACTGT -3'	5'- GACTGTACTTGACAATGTTGGGA -3'	155 bp	60°C	NM_001136069
mouse <i>PKM2</i>	5'- GTCTGGAGAAACAGCCAAGG -3'	5'- CGGAGTTCCTCGAATAGCTG -3'	114 bp	58°C	NM_001253883
mouse <i>PDK1</i>	5'- GGACTTCGGGTCAGTGAATGC -3'	5'- CTGAGAAGATTGTCGGGGA -3'	120 bp	60°C	NM_172665
mouse <i>β-actin</i>	5'- GGCTGTATTCCCCTCCATCG -3'	5'- CCAGTTGGTAACAATGCCATGT -3'	154 bp	60°C	NM_007393
rat <i>FHL2</i>	5'- GGACATCTGAAGGCGACACA-3'	5'- GCAAATCCCAGCTCTCCCTT-3'	360 bp	50°C	NM_031677
rat <i>LDHA</i>	5'- TTGGTCCAGCGAAACGTGAA-3'	5'- CTTCCAAGCCACGTAGGTCAAGA-3'	123 bp	60°C	NM_017025
rat <i>PKM2</i>	5'- ACCTGGGCATTGAGATTCCG-3'	5'- TCGCGCAAGCTCTTCAAACA-3'	314 bp	60°C	NM_053297
rat <i>HK2</i>	5'- GATGGAATCGAGAAGGCCTA-3'	5'- GTTTCTTGTAGACGGAGCCA-3'	220 bp	57°C	NM_012735
rat <i>β-actin</i>	5'-CGTAAAGACCTCTATGCCAACA-3'	5'-GGAGGAGCAATGATCTTGATCT-3'	131 bp	58°C	NM_031144

FHL2, four-and-a-half LIM domain protein 2; LDHA, lactate dehydrogenase A; PKM2, pyruvate kinase M2; PDK1, pyruvate dehydrogenase kinase 1; HK2, hexokinase 2.

The absence of non-specific results has been verified by blasting the primers. The validations of each pair of primers in PRIMER BLAST are as follows:

Mouse *FHL2*

Primer pair 1						
	Sequence (5'->3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	ATGACTGAACGCTTTGACTGC	21	59.47	47.62	4.00	2.00
Reverse primer	CGATGGGTGTTCCACACTCC	20	60.67	60.00	5.00	5.00
Products on target templates						
>NM_001412598.1 Mus musculus four and a half LIM domains 2 (Fhl2), transcript variant 3, mRNA						
product length = 142						
Forward primer	1 ATGACTGAACGCTTTGACTGC	21				
Template	91	111				
Reverse primer	1 CGATGGGTGTTCCACACTCC	20				
Template	232	213				
>NM_010212.5 Mus musculus four and a half LIM domains 2 (Fhl2), transcript variant 1, mRNA						
product length = 142						
Forward primer	1 ATGACTGAACGCTTTGACTGC	21				
Template	257	277				
Reverse primer	1 CGATGGGTGTTCCACACTCC	20				
Template	398	379				
>NM_001289533.2 Mus musculus four and a half LIM domains 2 (Fhl2), transcript variant 2, mRNA						
product length = 142						
Forward primer	1 ATGACTGAACGCTTTGACTGC	21				
Template	135	155				
Reverse primer	1 CGATGGGTGTTCCACACTCC	20				
Template	276	257				

Mouse *LDHA*

Primer pair 1						
	Sequence (5'->3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	TGCTCCAGCAAAGACTACTGT	22	59.03	45.45	4.00	3.00
Reverse primer	GACTGTACTTGACAATGTTGGGA	23	58.61	43.48	5.00	2.00
Products on target templates						
>XM_030242176.1 PREDICTED: Mus musculus lactate dehydrogenase A (Ldha), transcript variant X1, mRNA						
product length = 155						
Forward primer	1 TGCTCCAGCAAAGACTACTGT	22				
Template	3781	3802				
Reverse primer	1 GACTGTACTTGACAATGTTGGGA	23				
Template	3935	3913				
>NM_001136069.2 Mus musculus lactate dehydrogenase A (Ldha), transcript variant 2, mRNA						
product length = 155						
Forward primer	1 TGCTCCAGCAAAGACTACTGT	22				
Template	562	583				
Reverse primer	1 GACTGTACTTGACAATGTTGGGA	23				
Template	716	694				
>NM_010699.2 Mus musculus lactate dehydrogenase A (Ldha), transcript variant 1, mRNA						
product length = 155						
Forward primer	1 TGCTCCAGCAAAGACTACTGT	22				
Template	369	390				
Reverse primer	1 GACTGTACTTGACAATGTTGGGA	23				
Template	523	501				

Mouse *PKM2*

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	GTCTGGAGAAACAGCCAAGG	20	58.47	55.00	4.00	2.00
Reverse primer	CGGAGTTCCTCGAATAGCTG	20	57.87	55.00	4.00	2.00
Products on target templates						
>XM_006510856.3 PREDICTED: Mus musculus pyruvate kinase, muscle (Pkm), transcript variant X6, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	4575	4594				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	4688	4669				
>XM_036154691.1 PREDICTED: Mus musculus pyruvate kinase, muscle (Pkm), transcript variant X3, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	2747	2766				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	2860	2841				
>XM_036154690.1 PREDICTED: Mus musculus pyruvate kinase, muscle (Pkm), transcript variant X2, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	3099	3118				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	3212	3193				
>NM_001378868.1 Mus musculus pyruvate kinase, muscle (Pkm), transcript variant 5, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	1287	1306				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	1400	1381				
>NM_011099.4 Mus musculus pyruvate kinase, muscle (Pkm), transcript variant 2, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	1170	1189				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	1283	1264				
>NM_001378869.1 Mus musculus pyruvate kinase, muscle (Pkm), transcript variant 6, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	1167	1186				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	1280	1261				
>NM_001378870.1 Mus musculus pyruvate kinase, muscle (Pkm), transcript variant 7, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	1140	1159				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	1253	1234				
>XM_011242674.2 PREDICTED: Mus musculus pyruvate kinase, muscle (Pkm), transcript variant X1, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	2786	2805				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	2899	2880				
>XM_006510855.1 PREDICTED: Mus musculus pyruvate kinase, muscle (Pkm), transcript variant X4, mRNA						
product length = 114						
Forward primer	1 GTCTGGAGAAACAGCCAAGG	20				
Template	1324	1343				
Reverse primer	1 CGGAGTTCCTCGAATAGCTG	20				
Template	1437	1418				

Mouse *PDK1*

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	GGACTTCGGGTCAGTGAATGC	21	61.27	57.14	5.00	2.00
Reverse primer	CTGAGAAGATTGTCGGGGA	19	56.14	52.63	4.00	1.00
Products on target templates						
>XM_011239444.3 PREDICTED: Mus musculus pyruvate dehydrogenase kinase, isoenzyme 1 (Pdk1), transcript variant X1, mRNA						
product length = 120						
Forward primer	1 GGACTTCGGGTCAGTGAATGC 21					
Template	505 525					
Reverse primer	1 CTGAGAAGATTGTCGGGGA 19					
Template	624 606					
>NM_172665.5 Mus musculus pyruvate dehydrogenase kinase, isoenzyme 1 (Pdk1), transcript variant 1, mRNA; nuclear gene for mitochondrial product						
product length = 120						
Forward primer	1 GGACTTCGGGTCAGTGAATGC 21					
Template	335 355					
Reverse primer	1 CTGAGAAGATTGTCGGGGA 19					
Template	454 436					
>XM_011239446.4 PREDICTED: Mus musculus pyruvate dehydrogenase kinase, isoenzyme 1 (Pdk1), transcript variant X3, mRNA						
product length = 120						
Forward primer	1 GGACTTCGGGTCAGTGAATGC 21					
Template	239 AT.GAC..... 259					
Reverse primer	1 CTGAGAAGATTGTCGGGGA 19					
Template	358 340					
>NM_001360002.1 Mus musculus pyruvate dehydrogenase kinase, isoenzyme 1 (Pdk1), transcript variant 2, mRNA; nuclear gene for mitochondrial product						
product length = 120						
Forward primer	1 GGACTTCGGGTCAGTGAATGC 21					
Template	337 AT.GAC..... 357					
Reverse primer	1 CTGAGAAGATTGTCGGGGA 19					
Template	456 438					

Mouse *β-actin*

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	CGTAAAGACCTCTATGCCAACA	22	58.14	45.45	4.00	1.00
Reverse primer	GGAGGAGCAATGATCTTGATCT	22	57.65	45.45	8.00	6.00
Products on target templates						
>NM_007393.5 Mus musculus actin, beta (Actb), mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	977	998				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1107	1086				
>NM_177093.3 Mus musculus leucine rich repeat containing 58 (Lrrc58), mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	3111 .ACC...T.....	3132				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	3241	3220				
>NM_009608.4 Mus musculus actin, alpha, cardiac muscle 1 (Actc1), mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	1017 ..C.....G.....	1038				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1147 ..G.....A.....	1126				
>NM_001313923.1 Mus musculus actin, gamma, cytoplasmic 1 (Actg1), transcript variant 2, mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	990 ..C.....G.....T.	1011				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1120 ..G.....A....	1099				
>NM_009609.3 Mus musculus actin, gamma, cytoplasmic 1 (Actg1), transcript variant 1, mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	945 ..C.....G.....T.	966				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1075 ..G.....A....	1054				
>NM_007392.3 Mus musculus actin alpha 2, smooth muscle, aorta (Acta2), mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	981 A.G..G..T.....T....	1002				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1111G.....	1090				
>NM_001272041.1 Mus musculus actin alpha 1, skeletal muscle (Acta1), transcript variant 1, mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	1060 A.G..G....G.....	1081				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1190 ..G..G..G.....	1169				
>NM_009606.3 Mus musculus actin alpha 1, skeletal muscle (Acta1), transcript variant 2, mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	970 A.G..G....G.....	991				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1100 ..G..G..G.....	1079				

Rat *FHL2*

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	GGACATCTGAAGGCGACACA	20	60.04	55.00	3.00	1.00
Reverse primer	GCAAATCCCAGCTCTCCCTT	20	60.03	55.00	4.00	0.00
Products on target templates						
>XM_039084158.2 PREDICTED: Rattus norvegicus four and a half LIM domains 2 (Fhl2), transcript variant X1, mRNA						
product length = 360						
Forward primer	1 GGACATCTGAAGGCGACACA 20					
Template	993 1012					
Reverse primer	1 GCAAATCCCAGCTCTCCCTT 20					
Template	1352 1333					
>NM_031677.2 Rattus norvegicus four and a half LIM domains 2 (Fhl2), transcript variant 1, mRNA						
product length = 360						
Forward primer	1 GGACATCTGAAGGCGACACA 20					
Template	966 985					
Reverse primer	1 GCAAATCCCAGCTCTCCCTT 20					
Template	1325 1306					
>NM_001412599.1 Rattus norvegicus four and a half LIM domains 2 (Fhl2), transcript variant 2, mRNA						
product length = 360						
Forward primer	1 GGACATCTGAAGGCGACACA 20					
Template	1093 1112					
Reverse primer	1 GCAAATCCCAGCTCTCCCTT 20					
Template	1452 1433					

Rat *LDHA*

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	TTGGTCCAGCGAAACGTGAA	20	60.46	50.00	5.00	1.00
Reverse primer	CTTCCAAGCCACGTAGGTCAAGA	23	62.43	52.17	4.00	2.00
Products on target templates						
>XM_039082293.2 PREDICTED: Rattus norvegicus lactate dehydrogenase A like 1 (Ldhal1), mRNA						
product length = 123						
Forward primer	1 TTGGTCCAGCGAAACGTGAA 20					
Template	431 450					
Reverse primer	1 CTTCCAAGCCACGTAGGTCAAGA 23					
Template	553 531					
>XM_006229232.5 PREDICTED: Rattus norvegicus lactate dehydrogenase A (Ldha), transcript variant X1, mRNA						
product length = 123						
Forward primer	1 TTGGTCCAGCGAAACGTGAA 20					
Template	693 712					
Reverse primer	1 CTTCCAAGCCACGTAGGTCAAGA 23					
Template	815 793					
>NM_017025.2 Rattus norvegicus lactate dehydrogenase A (Ldha), mRNA						
product length = 123						
Forward primer	1 TTGGTCCAGCGAAACGTGAA 20					
Template	426 445					
Reverse primer	1 CTTCCAAGCCACGTAGGTCAAGA 23					
Template	548 526					

Rat PKM2

Primer pair 1						
	Sequence (5'→3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	ACCTGGGCATTGAGATTCCG	20	60.11	55.00	3.00	2.00
Reverse primer	TCGCGCAAGCTCTTCAAACA	20	61.16	50.00	4.00	2.00
Products on target templates						
>XM_063264962.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X11, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	949	968				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1262	1243				
>XM_063264961.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X10, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	969	988				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1282	1263				
>XM_006243190.4 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X8, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	1174	1193				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1487	1468				
>XM_063264957.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X5, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	1258	1277				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1571	1552				
>XM_063264956.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X4, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	1012	1031				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1325	1306				
>XM_063264955.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X3, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	1012	1031				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1325	1306				
>XM_063264953.1 PREDICTED: Rattus norvegicus pyruvate kinase M1/2 (Pkm), transcript variant X1, mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	1375	1394				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1688	1669				
>NM_053297.2 Rattus norvegicus pyruvate kinase M1/2 (Pkm), mRNA						
product length = 314						
Forward primer	1 ACCTGGGCATTGAGATTCCG	20				
Template	969	988				
Reverse primer	1 TCGCGCAAGCTCTTCAAACA	20				
Template	1282	1263				

Rat *HK2*

Primer pair 1						
	Sequence (5'->3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	GATGGAATCGAGAAGGCCTA	20	56.50	50.00	6.00	4.00
Reverse primer	GTTTCTTGTAGACGGAGCCA	20	57.55	50.00	3.00	0.00
Products on target templates						
>NM_012735.2 Rattus norvegicus hexokinase 2 (Hk2), mRNA						
product length = 220						
Forward primer	1 GATGGAATCGAGAAGGCCTA	20				
Template	1235	1254				
Reverse primer	1 GTTTCTTGTAGACGGAGCCA	20				
Template	1454	1435				

Rat *β-actin*

Primer pair 1						
	Sequence (5'->3')	Length	Tm	GC%	Self complementarity	Self 3' complementarity
Forward primer	CGTAAAGACCTCTATGCCAACA	22	58.14	45.45	4.00	1.00
Reverse primer	GGAGGAGCAATGATCTTGATCT	22	57.65	45.45	8.00	6.00
Products on target templates						
>NM_031144.3 Rattus norvegicus actin, beta (Actb), mRNA						
product length = 131						
Forward primer	1 CGTAAAGACCTCTATGCCAACA	22				
Template	946	967				
Reverse primer	1 GGAGGAGCAATGATCTTGATCT	22				
Template	1076	1055				