

**Supplemental Table S9. Genes used in the custom-designed Taqman 96-well plate array.**

**Assay IDs**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	Hs999999 01_s1	Mm0154 5399_m1	Mm0128 7243_m1	Mm0044 1203_m1	Mm0133 9500_m1	Mm0047 9413_m1	Mm0048 1847_m1	Mm0125 0826_gH	Mm0420 8097_gH	Mm0420 6919_gH	Mm0161 7100_m1	Mm00487 748_m1
<b>B</b>	Mm013255 34_m1	Mm0399 2643_g1	Mm0048 5144_m1	Mm0117 6889_m1	Mm0127 7365_g1	Mm0161 2859_m1	Mm0420 6921_gH	Mm0045 8960_m1	Mm0116 4723_m1	Mm0123 5487_m1	Mm0170 2218_m1	Mm03048 199_m1
<b>C</b>	Mm005024 89_m1	Mm0117 1272_m1	Mm0417 9196_s1	Mm0044 6453_m1	Mm0083 5341_m1	Mm0124 2468_m1	Mm0128 1680_m1	Mm0121 2616_m1	Mm0420 4866_gH	Mm0127 3666_m1	Mm0048 6960_m1	Mm00623 224_m1
<b>D</b>	Mm004640 55_m1	Mm0129 7389_m1	Mm0124 3172_m1	Mm0083 6704_s1	Mm0134 1942_m1	Mm0084 0848_m1	Mm0055 1153_m1	Mm0131 9006_g1	Mm0046 9627_m1	Mm0050 9777_m1	Mm0134 4923_m1	Mm00504 484_m1
<b>E</b>	Mm004810 09_g1	Mm0080 1734_m1	Mm0044 0939_m1	Mm0051 5970_m1	Mm0154 5250_m1	Mm0051 6111_m1	Mm0128 8934_m1	Mm0061 8325_m1	Mm0252 8926_s1	Mm0061 5085_s1	Mm0420 9003_m1	Mm00517 749_m1
<b>F</b>	Mm006180 04_m1	Mm0119 0080_m1	Mm0050 3287_m1	Mm0132 4644_m1	Mm0122 3180_m1	Mm0051 2973_m1	Mm0134 2020_g1	Mm0048 1472_m1	Mm0197 2869_s1	Mm0123 0949_m1	Mm0049 1164_m1	Mm00502 829_m1
<b>G</b>	Mm012107 99_m1	Mm0044 0824_m1	Mm0130 5007_m1	Mm0062 4464_m1	Mm0129 4171_g1	Mm0049 5130_m1	Mm0126 7564_m1	Mm0276 4210_s1	Mm0055 7621_m1	Mm0044 4701_m1	Mm0129 6602_m1	Mm01309 619_g1
<b>H</b>	Mm008049 52_m1	Mm0121 2795_m1	Mm0044 3176_m1	Mm0043 4513_m1	Mm0047 9556_m1	Mm0049 0018_g1	Mm0049 9420_m1	Mm0048 6771_m1	Mm0130 6805_m1	Mm0051 5399_m1	Mm0135 2473_m1	Mm00444 182_m1

**Gene Symbols**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>A</b>	18S	Hprt	Steap3	Saa3	Sppl2a	Pbx3	Tbc1d15	Ybx2	Gm14548,Pira1,Pira11,Pira2,Pira4,Pira5,Pira6,Pira7,Pirb	Gm14548,Pira11,Pira4,Pira7	Ccl12	Meis2
<b>B</b>	Gm6792	Gm6904	Mras	Fam219b	Tssc4	Serpinai3i	Gm14548,Pira11,Pira4,Pira5,Pira7	Rab32	Cdk13	Nckipso	Zfp870	Prm2
<b>C</b>	Actn4	Pld3	Smok2b	Sfxn3	Gm3404,Gm3402,Gm3409,Gm6370,Gm3415,4930449124Rik	Rbl2	Lmo2	Hook3	Gm13102,Pramel4,Pramel5	Zfp318	Ift81	Sycp2
<b>D</b>	Atoh8	Upf3b	2310003H01Rik	Olfir954	Hk3	Epdr1	Rpusd1	Myh7	Slc43a3	Agpat4	Thap7	Srgap3
<b>E</b>	Pus3	Hpd	Ppara	Heph	Ubxn10	Klrc1	BC053393	Ank2	Zfp2	Tmem139	Enkur	Lima1
<b>F</b>	Egfl7	Cacna2d4	Aar2	4930529M08Rik	Prss48	Atg2b	Zbtb17	Cdrt4	Prss23	Hnrnpul2	Cd200r1	Col26a1
<b>G</b>	Gareml	Pitx1	Slc25a53	D630003M21Rik	Sertm1	Kif9	Zfp618	Zfp62	Fam180a	Ccl24	Adora3	Tceal5
<b>H</b>	Chrb4	Efn1	Sema6b	Itgb2	B4galt2	Chst2	Golph3	Runx1t1	Cacnb1	Ctnna2	Slc9a3	Galk1

A1-A2: housekeeping genes, A3-E3: genes differentially upregulated in carvedilol-treated mouse hearts (see Table 2), E4-H1: genes differentially downregulated in carvedilol-treated mouse hearts (see Table 3), H2-H4: genes differentially upregulated in carvedilol-treated mouse hearts (see Supplementary Table 1), H5-H12: genes differentially downregulated in carvedilol-treated mouse hearts (see Supplementary Table 2).

**Detector (gene probe)**

18S-Hs99999901\_s1

Hprt-Mm01545399\_m1

Steap3-Mm01287243\_m1

Saa3-Mm00441203\_m1

Sppl2a-Mm01339500\_m1

**Description**

Eukaryotic 18S rRNA

hypoxanthine guanine phosphoribosyl transferase

STEAP family member 3

serum amyloid A 3

signal peptide peptidase like 2A

Pbx3-Mm00479413_m1	pre B cell leukemia homeobox 3
Tbc1d15-Mm00481847_m1	TBC1 domain family, member 15
Ybx2-Mm01250826_gH	Y box protein 2
Gm14548;Pira1;Pira11;Pira2;Pira4;Pira5;Pira6;Pira7;Pirb-Mm04208097_gH	predicted gene 14548, paired-Ig-like receptor A1, paired-Ig-like receptor A11, paired-Ig-like receptor A2, paired-Ig-like receptor A4, paired-Ig-like receptor A5, paired-Ig-like receptor A6, paired-Ig-like receptor A7, paired-Ig-like receptor B
Gm14548;Pira11;Pira4;Pira7-Mm04206919_gH	predicted gene 14548, paired-Ig-like receptor A11, paired-Ig-like receptor A4, paired-Ig-like receptor A7
Ccl12-Mm01617100_m1	chemokine (C-C motif) ligand 12
Meis2-Mm00487748_m1	Meis homeobox 2
Gm6792-Mm01325534_m1	predicted gene 6792
Gm6904-Mm03992643_g1	predicted gene 6904
Mras-Mm00485144_m1	muscle and microspikes RAS
Fam219b-Mm01176889_m1	family with sequence similarity 219, member B
Tssc4-Mm01277365_g1	tumor-suppressing subchromosomal transferable fragment 4
Serpina3i-Mm01612859_m1	serine (or cysteine) peptidase inhibitor, clade A, member 3I
Gm14548;Pira11;Pira4;Pira5;Pira7-Mm04206921_gH	predicted gene 14548, paired-Ig-like receptor A11, paired-Ig-like receptor A4, paired-Ig-like receptor A5, paired-Ig-like receptor A7
Rab32-Mm00458960_m1	RAB32, member RAS oncogene family
Cdk13-Mm01164723_m1	cyclin-dependent kinase 13
Nckipsd-Mm01235487_m1	NCK interacting protein with SH3 domain
Zfp870-Mm01702218_m1	zinc finger protein 870
Prm2-Mm03048199_m1	protamine 2
Actn4-Mm00502489_m1	actinin alpha 4
Pld3-Mm01171272_m1	phospholipase D family, member 3
Smok2b-Mm04179196_s1	sperm motility kinase 2B
Sfxn3-Mm00446453_m1	sideroflexin 3
Gm3404;Gm3402;Gm3409;Gm6370;Gm3415;4930449I24Rik-Mm00835341_m1	predicted gene 3404, predicted gene 3402, predicted gene 3409, predicted gene 6370, predicted gene 3415, RIKEN cDNA 4930449I24 gene
Rbl2-Mm01242468_m1	retinoblastoma-like 2
Lmo2-Mm01281680_m1	LIM domain only 2
Hook3-Mm01212616_m1	hook homolog 3 (Drosophila)
Gm13102;Pramel4;Pramel5-Mm04204866_gH	predicted gene 13102, preferentially expressed antigen in melanoma like 4, preferentially expressed antigen in melanoma like 5
Zfp318-Mm01273666_m1	zinc finger protein 318
Ift81-Mm00486960_m1	intraflagellar transport 81
Sycp2-Mm00623224_m1	synaptonemal complex protein 2
Atoh8-Mm00464055_m1	atonal homolog 8 (Drosophila)
Upf3b-Mm01297389_m1	UPF3 regulator of nonsense transcripts homolog B (yeast)
2310003H01Rik-Mm01243172_m1	RIKEN cDNA 2310003H01 gene
Olf954-Mm00836704_s1	olfactory receptor 954

Hk3-Mm01341942_m1	hexokinase 3
Epdr1-Mm00840848_m1	ependymin related protein 1 (zebrafish)
Rpsud1-Mm00551153_m1	RNA pseudouridylate synthase domain containing 1
Myh7-Mm01319006_g1	myosin, heavy polypeptide 7, cardiac muscle, beta
Slc43a3-Mm00469627_m1	solute carrier family 43, member 3
Agpat4-Mm00509777_m1	1-acylglycerol-3-phosphate O-acyltransferase 4 (lysophosphatidic acid acyltransferase, delta)
Thap7-Mm01344923_m1	THAP domain containing 7
Srgap3-Mm00504484_m1	SLIT-ROBO Rho GTPase activating protein 3
Pus3-Mm00481009_g1	pseudouridine synthase 3
Hpd-Mm00801734_m1	4-hydroxyphenylpyruvic acid dioxygenase
Ppara-Mm00440939_m1	peroxisome proliferator activated receptor alpha
Heph-Mm00515970_m1	hephaestin
Ubxn10-Mm01545250_m1	UBX domain protein 10
Klrc1-Mm00516111_m1	killer cell lectin-like receptor subfamily C, member 1
BC053393-Mm01288934_m1	cDNA sequence BC053393
Ank2-Mm00618325_m1	ankyrin 2, brain
Zfp2-Mm02528926_s1	zinc finger protein 2
Tmem139-Mm00615085_s1	transmembrane protein 139
Enkur-Mm04209003_m1	enkurin, TRPC channel interacting protein
Lima1-Mm00517749_m1	LIM domain and actin binding 1
Egfl7-Mm00618004_m1	EGF-like domain 7
Cacna2d4-Mm01190080_m1	calcium channel, voltage-dependent, alpha 2/delta subunit 4
Aar2-Mm00503287_m1	AAR2 splicing factor homolog (S. cerevisiae)
4930529M08Rik-Mm01324644_m1	RIKEN cDNA 4930529M08 gene
Prss48-Mm01223180_m1	protease, serine 48
Atg2b-Mm00512973_m1	autophagy related 2B
Zbtb17-Mm01342020_g1	zinc finger and BTB domain containing 17
Cdrt4-Mm00481472_m1	CMT1A duplicated region transcript 4
Prss23-Mm01972869_s1	protease, serine 23
Hnrnpul2-Mm01230949_m1	heterogeneous nuclear ribonucleoprotein U-like 2
Cd200r1-Mm00491164_m1	CD200 receptor 1
Col26a1-Mm00502829_m1	collagen, type XXVI, alpha 1
Gareml-Mm01210799_m1	GRB2 associated, regulator of MAPK1-like
Pitx1-Mm00440824_m1	paired-like homeodomain transcription factor 1
Slc25a53-Mm01305007_m1	solute carrier family 25, member 53
D630003M21Rik-Mm00624464_m1	RIKEN cDNA D630003M21 gene
Sertm1-Mm01294171_g1	serine rich and transmembrane domain containing 1
Kif9-Mm00495130_m1 FAM	kinesin family member 9
Zfp618-Mm01267564_m1	zinc finger protein 618

Zfp62-Mm02764210_s1	zinc finger protein 62
Fam180a-Mm00557621_m1	family with sequence similarity 180, member A
Ccl24-Mm00444701_m1	chemokine (C-C motif) ligand 24
Adora3-Mm01296602_m1	adenosine A3 receptor
Tceal5-Mm01309619_g1	transcription elongation factor A (SII)-like 5
Chrn4-Mm00804952_m1	cholinergic receptor, nicotinic, beta polypeptide 4
Efna1-Mm01212795_m1	ephrin A1
Sema6b-Mm00443176_m1	sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6B
Itgb2-Mm00434513_m1	integrin beta 2
B4galt2-Mm00479556_m1	UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 2
Chst2-Mm00490018_g1	carbohydrate sulfotransferase 2
Golph3-Mm00499420_m1	golgi phosphoprotein 3
Runx1t1-Mm00486771_m1	runt-related transcription factor 1; translocated to, 1 (cyclin D-related)
Cacnb1-Mm01306805_m1	calcium channel, voltage-dependent, beta 1 subunit
Ctnna2-Mm00515399_m1	catenin (cadherin associated protein), alpha 2
Slc9a3-Mm01352473_m1	solute carrier family 9 (sodium/hydrogen exchanger), member 3
Galk1-Mm00444182_m1	galactokinase 1