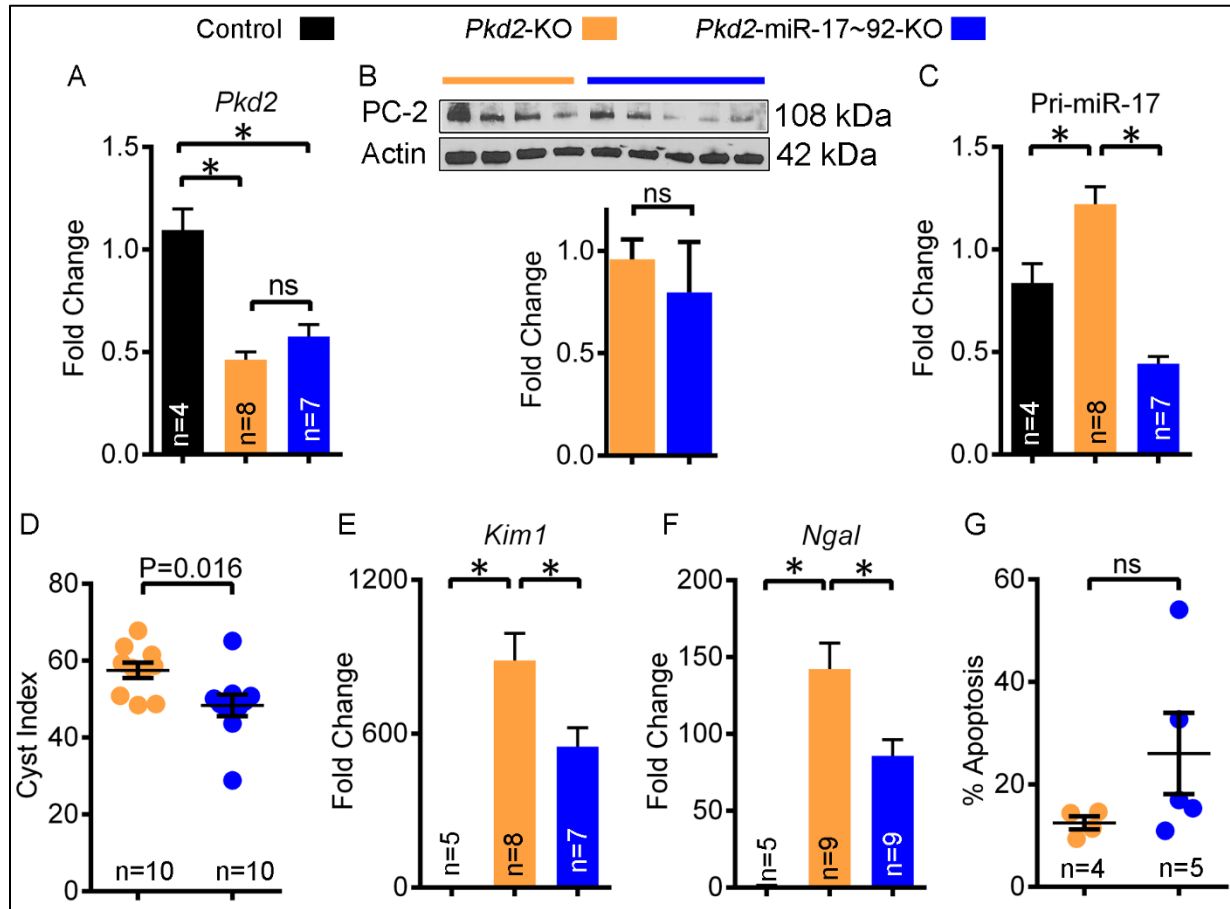
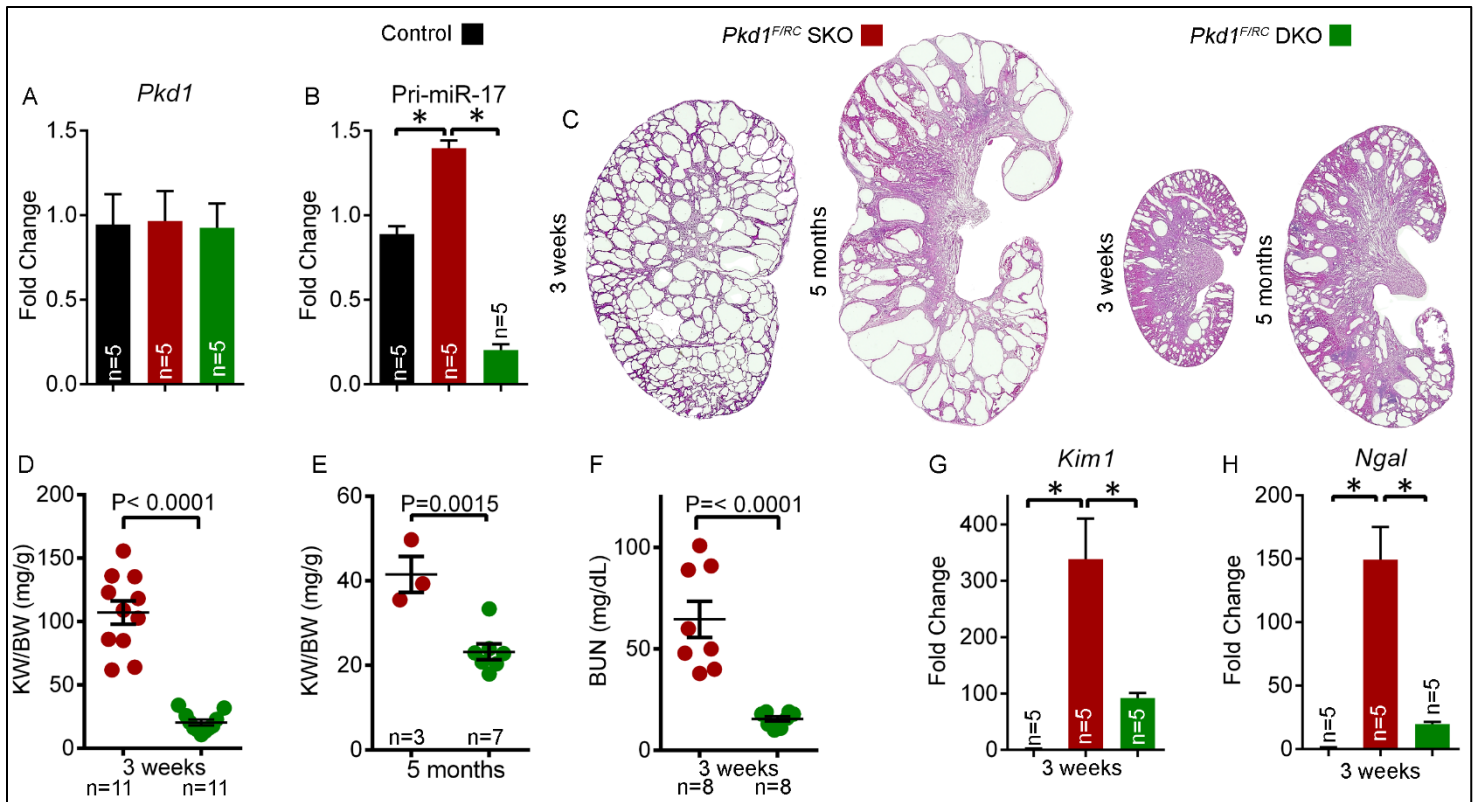


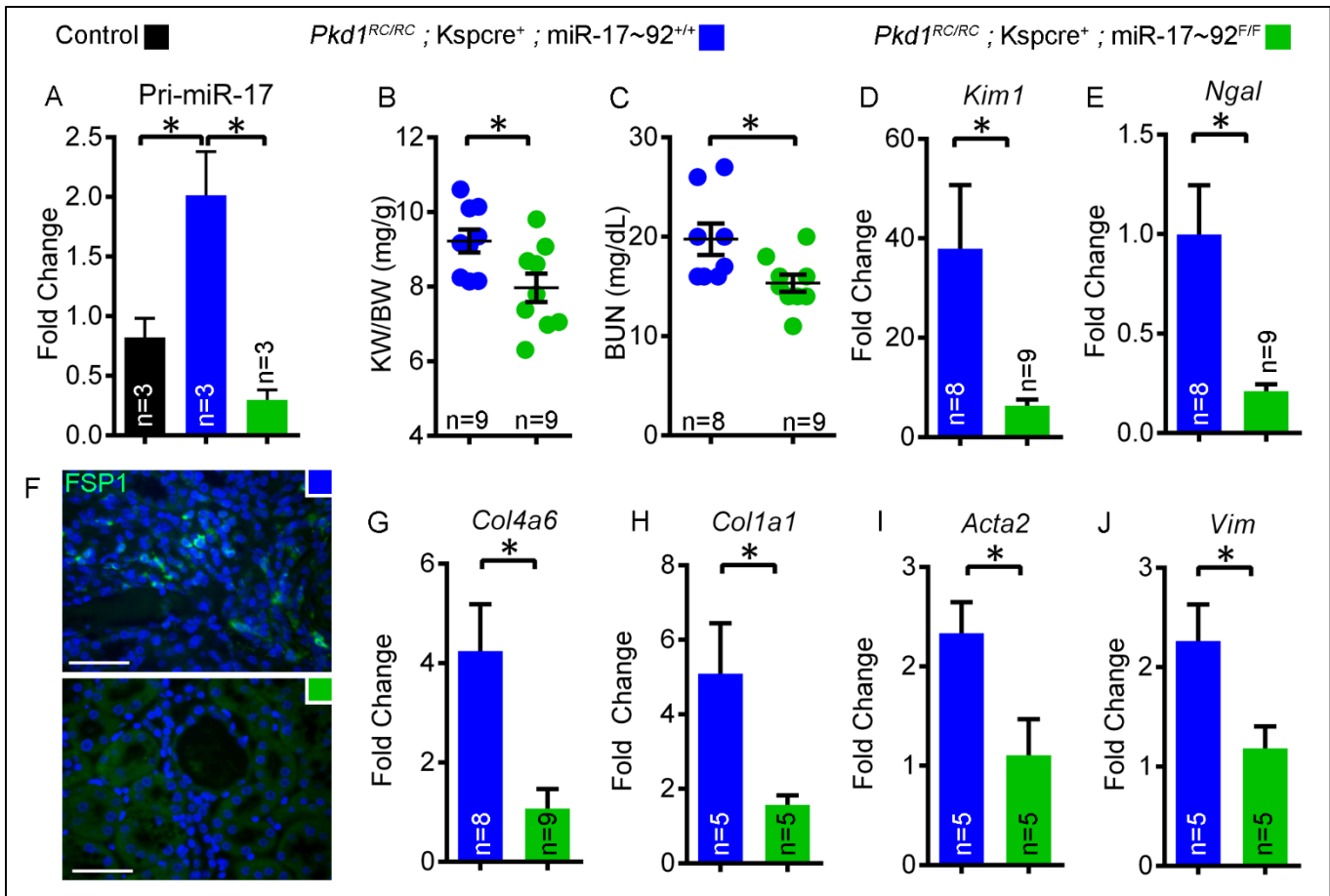
**Supplementary Figure 1:** To test the role of miR-17~92 in orthologous genetic model of ADPKD, we generated *Ksp/Cre;Pkd1<sup>F/F</sup>* (*Pkd1*-KO) and *Ksp/Cre;Pkd1<sup>F/F</sup>;miR-17~92<sup>F/F</sup>* (*Pkd1*-miR-17~92KO) mice. (A) Q-PCR analysis revealed that compared to control kidneys (black), *Pkd1* expression was equally reduced in both *Pkd1*-KO (red) and *Pkd1*-miR-17~92KO (green) kidneys, indicating that a similar level of *Cre/loxP* recombination was observed. (B) Q-PCR analysis revealed that, compared to control kidneys, miR-17 expression was increased in *Pkd1*-KO kidneys, whereas its expression was reduced in *Pkd1*-miR-17~92KO mice. (C) Kidney-weight-to-body-weight (KW/BW) ratio and the expression of kidney injury markers (D) *Kim1* and (E) *Ngal* was reduced in *Pkd1*-miR-17~92KO compared to *Pkd1*-KO kidneys. (F) The number of cyst epithelia undergoing apoptosis did not change in *Pkd1*-miR-17~92KO compared to *Pkd1*-KO kidneys. Error bars indicate SEM. \* indicates  $P < 0.05$ , ns indicates  $P > 0.05$ . One-way ANOVA, Tukey's multiple comparisons test (A, B, D, E), Student's unpaired *t*-test (C, F)



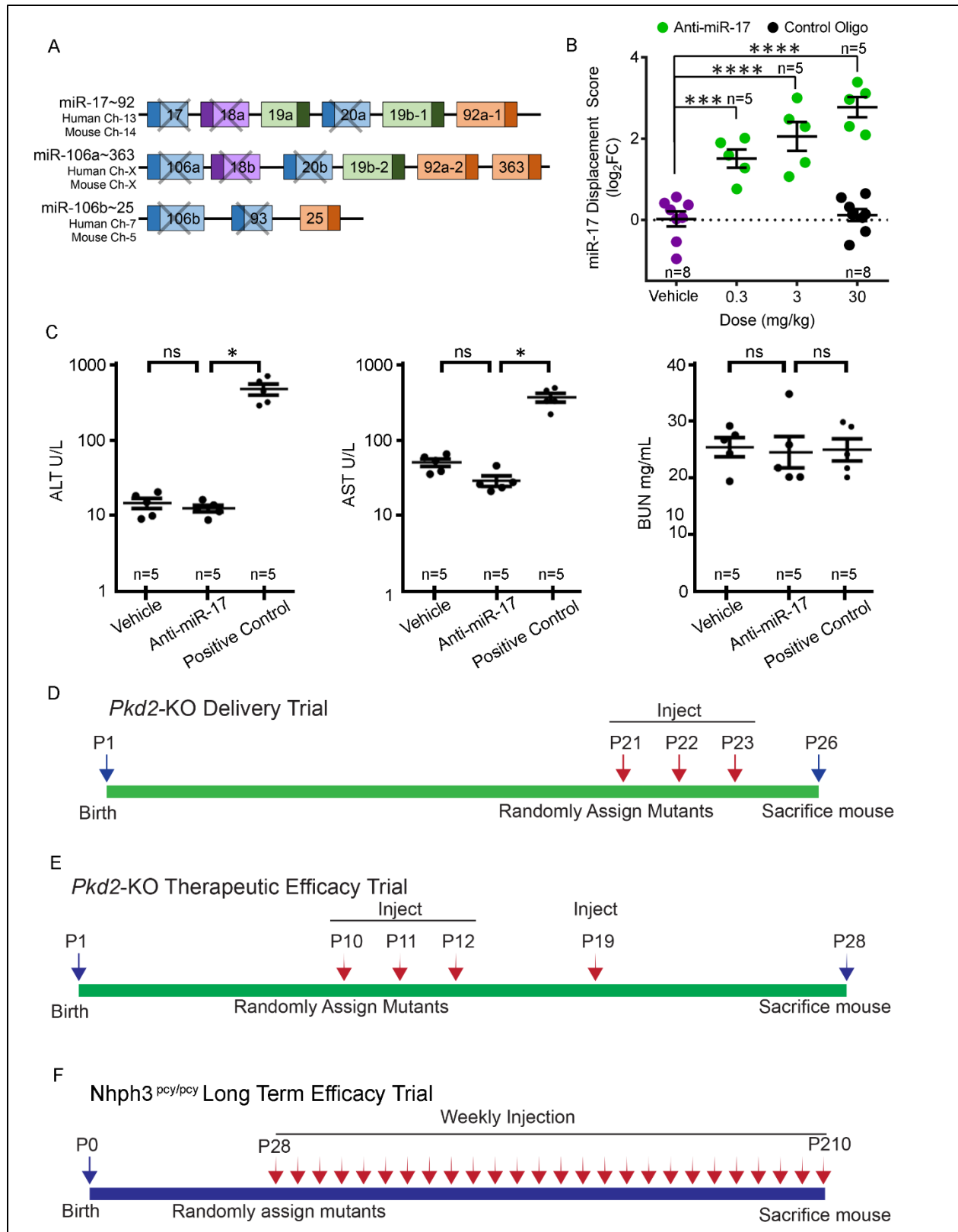
**Supplementary Figure 2:** To test the role of miR-17~92 in an orthologous genetic model of ADPKD bearing mutations in *Pkd2*, we generated *Pkhd1/Cre;Pkd2<sup>F/F</sup>* (*Pkd2*-KO) and *Pkhd1/Cre;Pkd2;miR-17~92<sup>F/F</sup>* (*Pkd2*-miR-17~92KO) mice. (A) Q-PCR analysis revealed that, compared to control kidneys (black), *Pkd2* expression was equally reduced in both *Pkd2*-KO (orange) and *Pkd2*-miR-17~92KO (blue) kidneys, indicating that a similar level of *Cre/loxP* recombination was observed. (B) Western Blot analysis and quantification of Polycystin-2 (PC-2) expression in *Pkd2*-KO and *Pkd2*-miR-17~92KO kidneys is shown. miR-17 deletion did not affect PC-2 expression in *Pkd2*-miR-17~92KO kidneys. (C) Q-PCR analysis revealed that, compared to control kidneys, miR-17 expression was increased in *Pkd2*-KO kidneys, whereas its expression was reduced by ~60% in *Pkd2*-miR-17~92KO mice. (D) Cyst index and the expression of kidney injury markers (E) *Kim1* and (F) *Ngal* was reduced in *Pkd2*-miR-17~92KO compared to *Pkd2*-KO kidneys. (G) The number of cyst epithelia undergoing apoptosis was higher in *Pkd2*-miR-17~92KO compared to *Pkd2*-KO kidneys. However, this difference was not statistically significant. Error bars indicate SEM. \* indicates  $P < 0.05$ , ns indicates  $P > 0.05$ . . One-way ANOVA, Tukey's multiple comparisons test (A, C, E, F), Student's unpaired *t*-test (B, D, G)



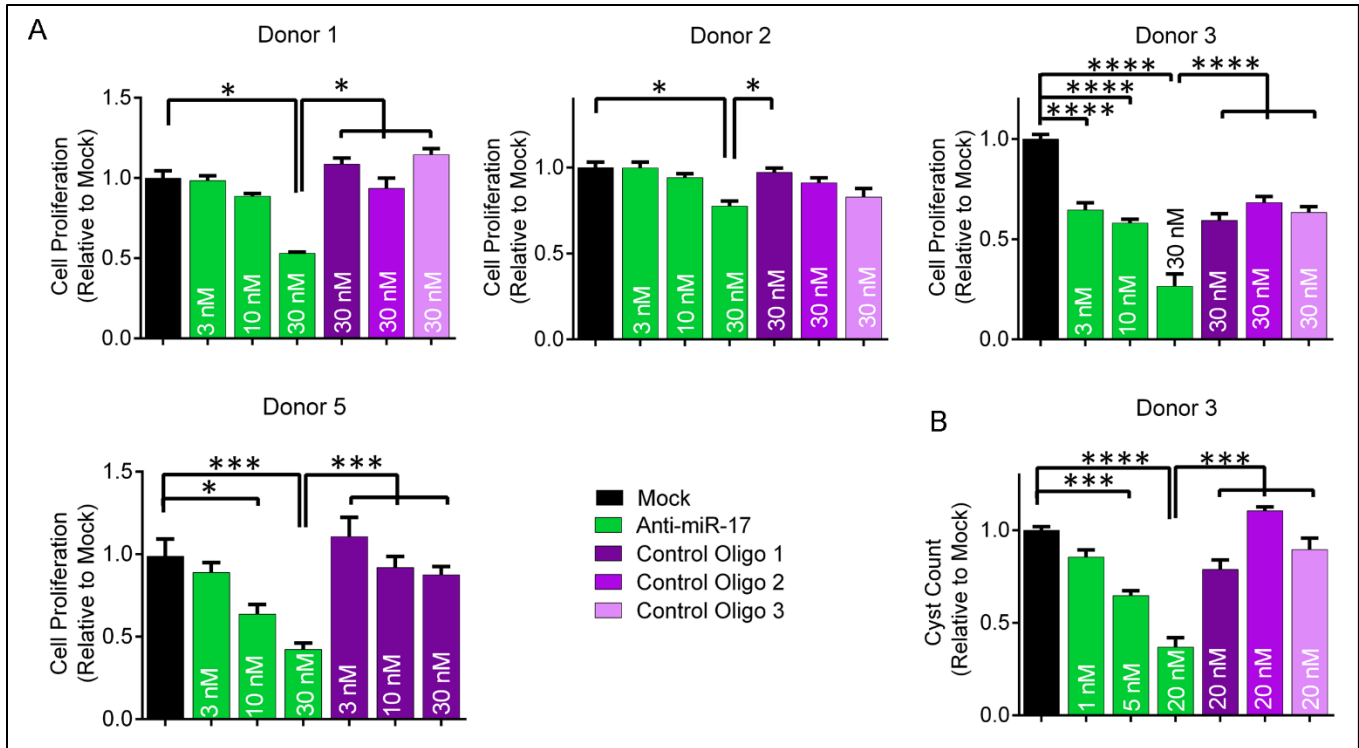
**Supplementary Figure 3:** To test the role of miR-17~92 in a long-lived ADPKD model, we generated *Ksp/Cre;Pkd1<sup>Flox/RC</sup>* (*Pkd1<sup>F/RC</sup>SKO*) and *Ksp/Cre;Pkd1<sup>Flox/RC</sup>;miR-17~92<sup>F/F</sup>* (*Pkd1<sup>F/RC</sup>DKO*) mice. This compound *Pkd1*-mutant mouse harbors a germline hypomorphic mutation on one allele and a *Cre/loxP* recombination-induced, renal tubule-specific, somatic null mutation on the other allele. (A) Q-PCR analysis revealed that *Pkd1* expression was not different between control (black), *Pkd1<sup>F/RC</sup>SKO* (red) and *Pkd1<sup>F/RC</sup>DKO* (green) kidneys, suggesting that deleting one floxed allele does not affect the total *Pkd1* mRNA expression. (B) In contrast, Q-PCR analysis revealed that, compared to control kidneys, miR-17 expression was increased in *Pkd1<sup>F/RC</sup>SKO* kidneys, whereas its expression was reduced by ~80% in *Pkd1<sup>F/RC</sup>DKO* kidneys. (C) H&E staining of kidney sections from three-week-old and five-month-old *Pkd1<sup>F/RC</sup>SKO* and *Pkd1<sup>F/RC</sup>DKO* mice is shown. (D&E) Kidney-weight-to-body-weight (KW/BW) ratio, (F) blood urea nitrogen (BUN) level and the expression of (G) *Kim1* and (H) *Ngal* was reduced in *Pkd1<sup>F/RC</sup>DKO* compared to *Pkd1<sup>F/RC</sup>SKO* mice. Thus, deletion of miR-17~92 markedly attenuates disease progression in *Ksp/Cre;Pkd1<sup>Flox/RC</sup>* mice. Error bars indicate SEM. \* indicates P<0.05, ns indicates P>0.05. One-way ANOVA, Tukey's multiple comparisons test (A, B, G, H), Student's unpaired *t*-test (D, E, F)



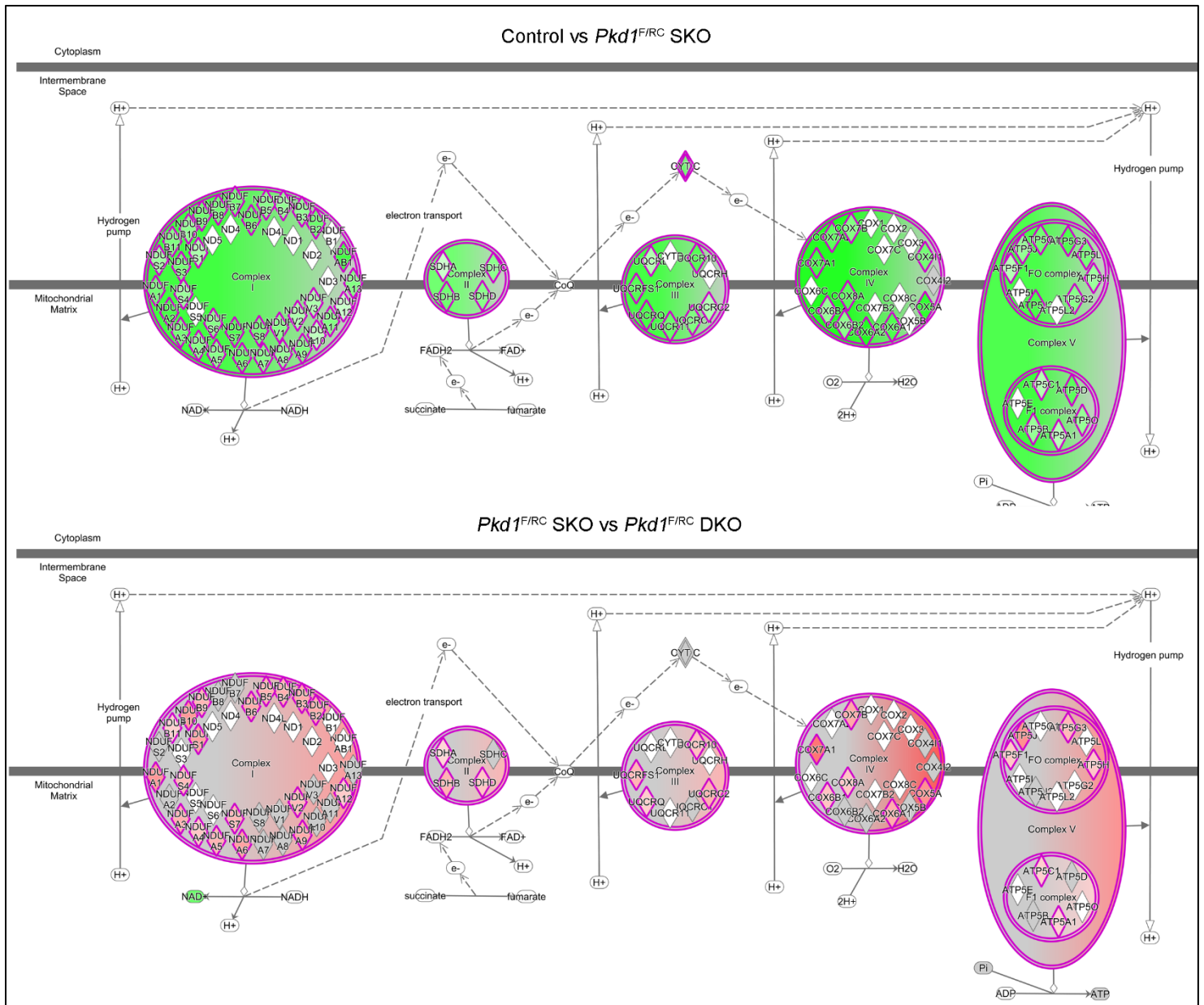
**Supplementary Figure 4:** To test the role of miR-17~92 in a slow cyst growth ADPKD model, we generated and characterized 6-month-old *Pkd1<sup>RC/RC</sup>; Ksp/Cre* (*Pkd1<sup>RC/RC</sup>*) and *Pkd1<sup>RC/RC</sup>; Ksp/Cre;miR-17~92<sup>F/F</sup>* mice (*Pkd1<sup>RC/RC</sup>DKO*). Unlike the preceding three ADPKD models, *Cre/loxP* recombination is not required to induce *Pkd1* mutation, and these mice develop significant renal fibrosis. *Ksp/Cre* was introduced into the cross to delete miR-17~92. (A) Q-PCR analysis revealed that, compared to control kidneys, miR-17 expression was increased in *Pkd1<sup>RC/RC</sup>* kidneys, whereas its expression was reduced in *Pkd1<sup>RC/RC</sup>DKO* compared to *Pkd1<sup>RC/RC</sup>* mice. (B) Kidney-weight-to-body-weight ratio, (C) BUN and the expression of (D) *Kim1* and (E) *Ngal* was decreased in *Pkd1<sup>RC/RC</sup>DKO* compared to *Pkd1<sup>RC/RC</sup>* mice. (F) Kidney sections were stained with an antibody against Fsp1 (fibroblast-specific protein 1). Fsp1 expression (green) was decreased in *Pkd1<sup>RC/RC</sup>DKO* kidneys compared to *Pkd1<sup>RC/RC</sup>* kidneys. (G-J) Q-PCR analysis showed that the expression of other fibrosis markers (*Col4a6*, *Col1a1*, *Acta2*, and *Vimentin*) was also decreased in *Pkd1<sup>RC/RC</sup>DKO* kidneys compared to *Pkd1<sup>RC/RC</sup>* kidneys. Collectively, these results indicate that miR-17~92 deletion attenuates disease progression in *Pkd1<sup>RC/RC</sup>* mice. Error bars indicate SEM. \* indicates P<0.05, ns indicates P>0.05. One-way ANOVA, Tukey's multiple comparisons test (A) Student's unpaired *t*-test (B-J). Scale Bar: 50  $\mu$ m.



**Supplementary Figure 5:** (A) Genomic organization of the miR-17~92 and its paralogous clusters miR-106a~363 and miR-106b~25 is shown. Collectively, these three miRNA clusters encode miRNAs that belong to either the miR-17 (blue), miR-19 (green), miR-18 (purple) or miR-25 (orange) miRNA families. We have previously shown that our anti-miR-17 compound inhibits miRNAs that are marked with an 'X' in cultured cells. (B) The ability of this compound to inhibit miR-17 *in vivo* was measured using the miRNA polysome shift assay (miPSA)<sup>1</sup>. Normal mice were treated with a single subcutaneous dose of vehicle (PBS), anti-miR-17 (0.3, 3 or 30 mg per kg dose) or control oligonucleotide (30 mg per kg dose), and kidneys were harvested 7-days later (n=5-7 each group and dose). miR-17 fraction (normalized to let-7d) in high molecular weight (HMW) was measured by Q-PCR. miR-17 was displaced from HMW polysomes in kidneys of mice injected with anti-miR-17 in a dose-dependent manner. Similar miR-17 displacement was not observed in mice treated with vehicle or a control oligonucleotide. (C) Normal adult mice were injected with 300 mg per kg dose of anti-miR-17, vehicle or a control oligonucleotide known to produce liver toxicity (positive control). Measurement of the liver (ALT and AST) and kidney function (BUN) showed that anti-miR-17 does not produce acute liver or kidney toxicity. (D-F) The design of the delivery and therapeutic efficacy trials are shown. Error bars indicate SEM. \* indicates P<0.05, ns indicates P>0.05. One-way ANOVA, Tukey's multiple comparisons test (B) Student's unpaired *t*-test (C)

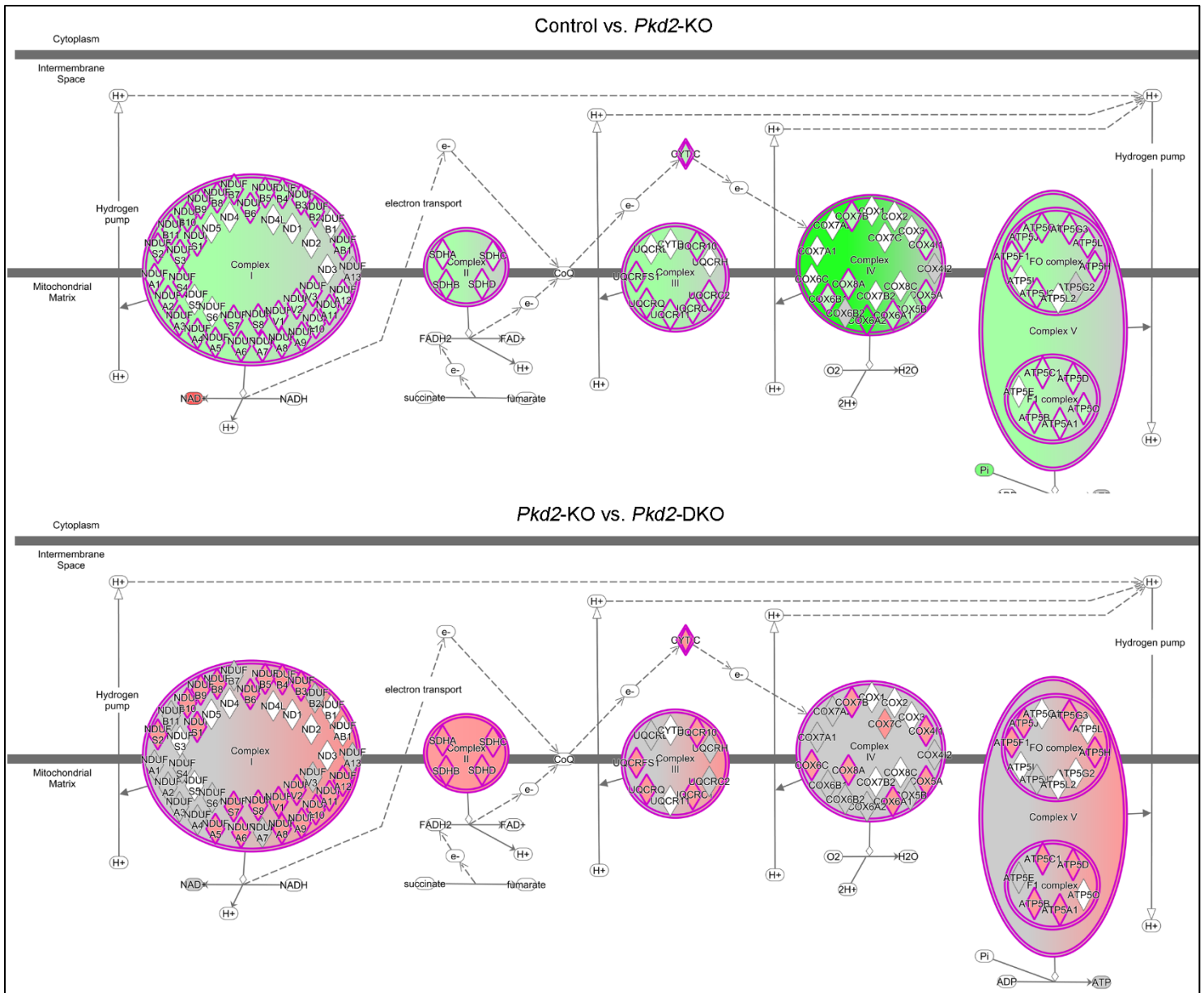


**Supplementary Figure 6:** Primary cyst epithelial cultures derived from kidneys of ADPKD patients were transfected with anti-miR-17 (dose: 3 nM, 10 nM or 30 nM) or three different control oligonucleotides (dose: 30 nM, control oligo1, 2 and 3) or mock-transfected. These cells were then cultured to measure proliferation and *in-vitro* cyst formation. (A) Data for proliferation (n=5 for each treatment and dose) using primary cultures derived from ADPKD Donor1, 2, 3 and 5. (B) *In-vitro* cyst formation (n=3 for each treatment and dose) using primary cultures derived from ADPKD Donor 3. Anti-miR-17 reduced cell viability and cyst count in a dose-dependent manner. Error bars indicate SEM. \*indicates P<0.05, \*\*indicates ns indicates P<0.01, \*\*\*indicates ns indicates P<0.005, and \*\*\*\*indicates P<0.001. One-way ANOVA, Tukey's multiple comparisons test

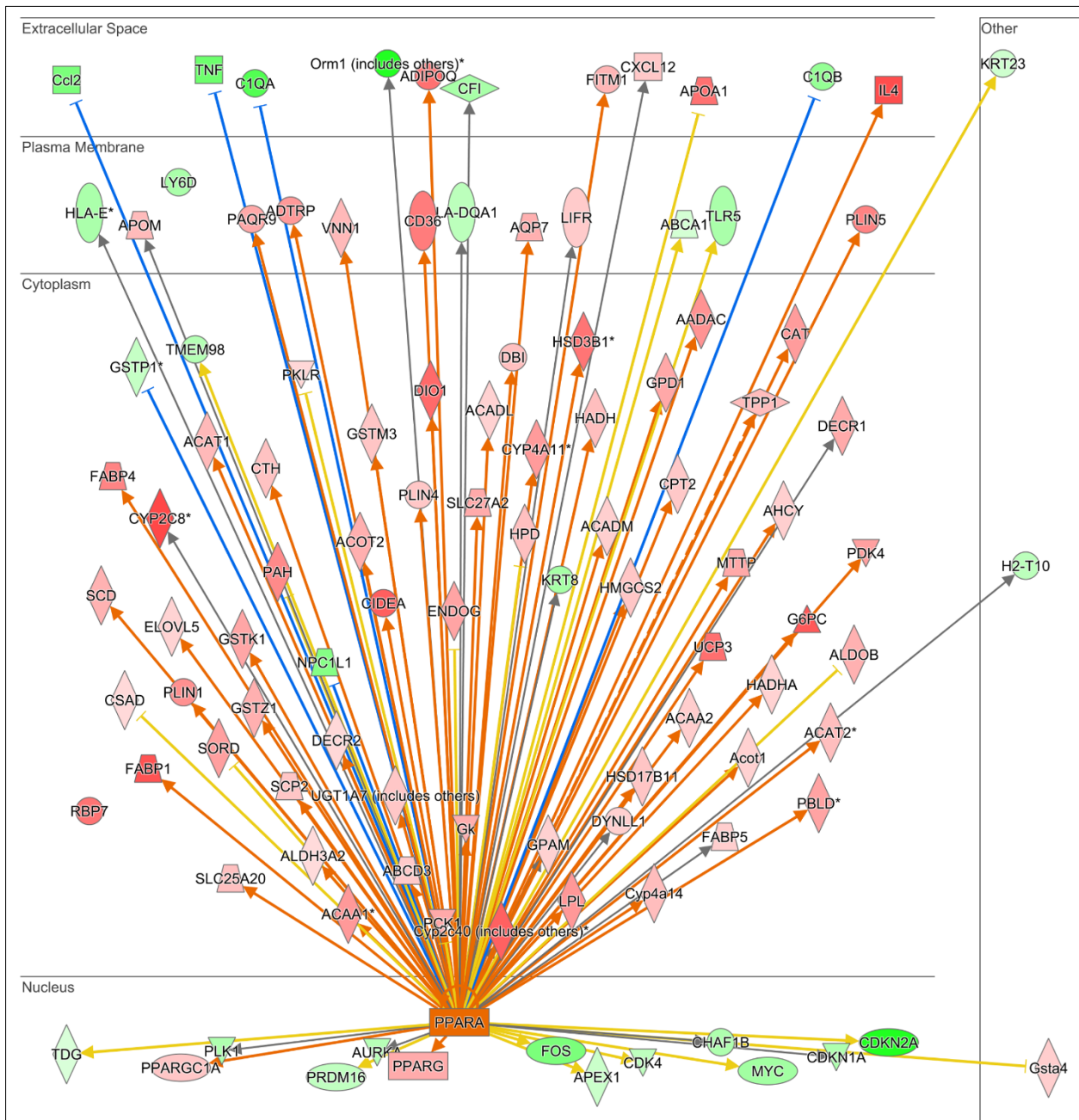


**Supplementary Figure 7:** RNA-Seq analysis was performed to compare mRNA expression profiles between kidneys of 21-day-old control, *Pkd1*<sup>F/RC</sup>SKO and *Pkd1*<sup>F/RC</sup>DKO mice (n=3). The differentially expressed genes (P<0.05, FDR<0.1) were further analyzed using the Ingenuity Pathway Analysis (IPA) software. Several mitochondrial pathways were differentially expressed. In particular, the oxidative phosphorylation pathway (shown above) was downregulated in *Pkd1*<sup>F/RC</sup>SKO compared to control kidneys. In contrast, this pathway was upregulated in *Pkd1*<sup>F/RC</sup>DKO compared to *Pkd1*<sup>F/RC</sup>SKO kidneys. Green indicates downregulated genes, whereas red indicates upregulated genes.



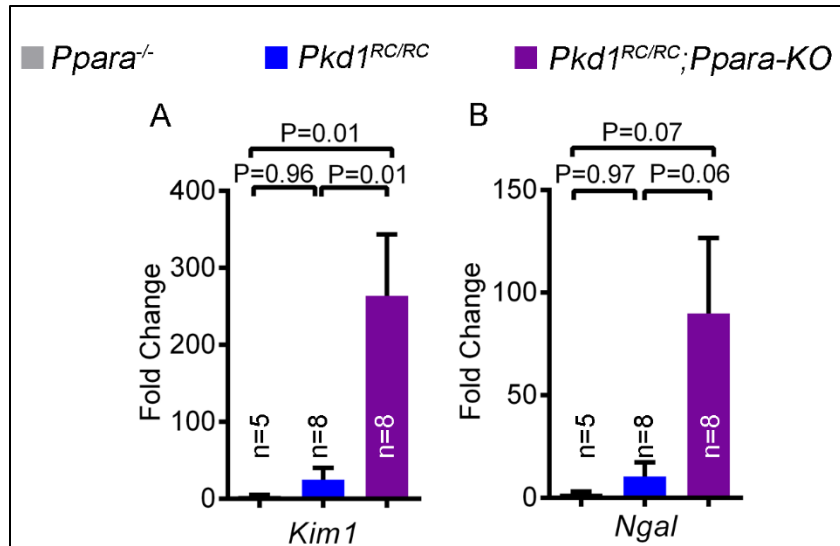


**Supplementary Figure 8:** RNA-Seq analysis was performed to compare mRNA expression profiles between kidneys of 21-day-old control, *Pkd2*-KO and *Pkd2*-miR-17~92KO mice (n=5). The differentially expressed genes ( $P < 0.05$ ,  $FDR < 0.1$ ) were further analyzed using the Ingenuity Pathway Analysis (IPA) software. Similar to the *Pkd1*-mutant mice, several mitochondrial pathways were differentially expressed. The oxidative phosphorylation pathway (shown above) was downregulated in *Pkd2*-KO compared to control kidneys. In contrast, this pathway was upregulated in *Pkd2*-miR-17~92KO compared to *Pkd2*-KO kidneys. Green indicates downregulated genes, whereas red indicates upregulated genes.

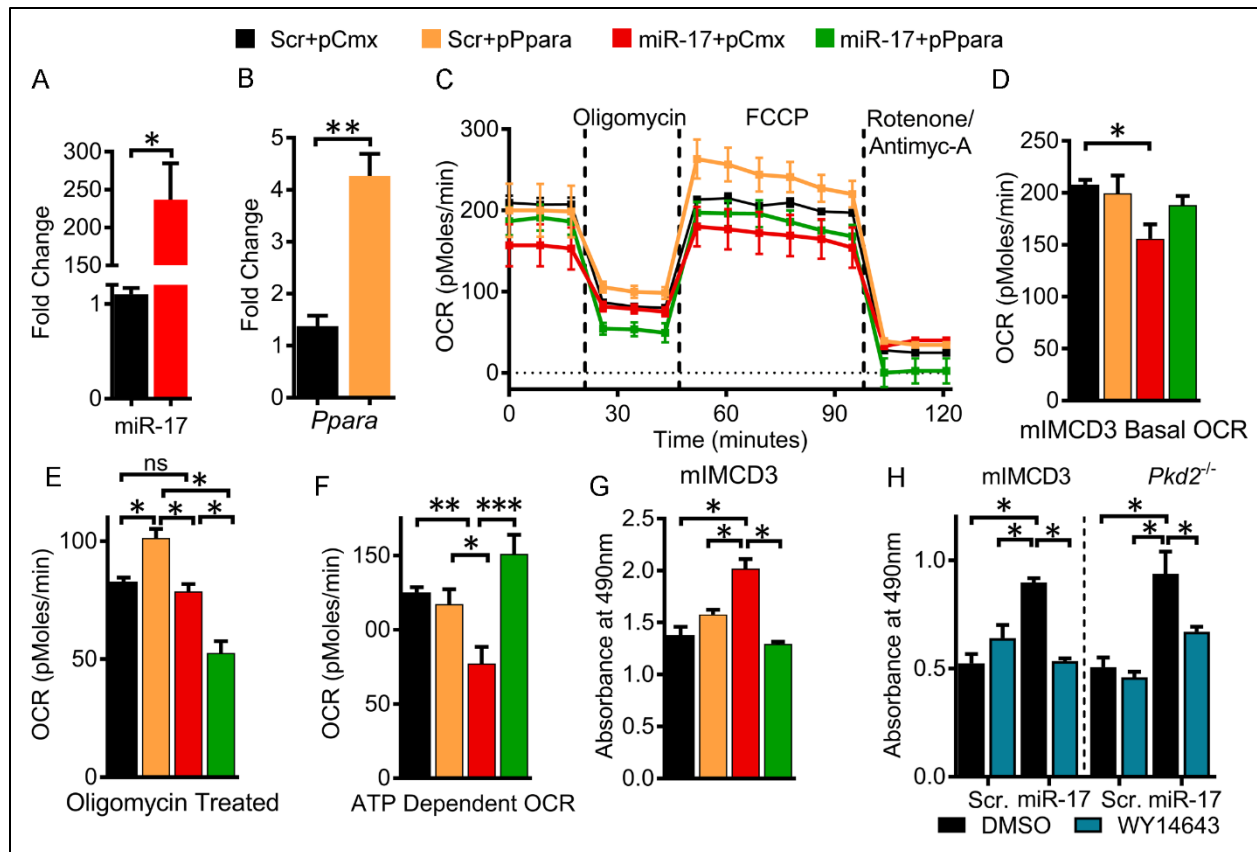


**Supplementary Figure 9:** RNA-Seq analysis was performed to compare mRNA expression profiles between kidneys of 21-day-old control, *Pkd1*<sup>F/RC</sup>SKO and *Pkd1*<sup>F/RC</sup>DKO mice (n=3). The differentially expressed genes (P<0.05, FDR<0.1) were further analyzed using the Ingenuity Pathway Analysis (IPA) software to identify the upstream regulators that may be responsible for the gene expression changes observed after miR-17~92 deletion. PPARA-regulated gene network was predicted to be robustly activated after miR-17~92 deletion. Accordingly, a large number of direct PPARA targets (shown above) were upregulated in *Pkd1*<sup>F/RC</sup>DKO compared to *Pkd1*<sup>F/RC</sup>SKO kidneys. Green indicates downregulated genes, whereas red indicates upregulated genes.

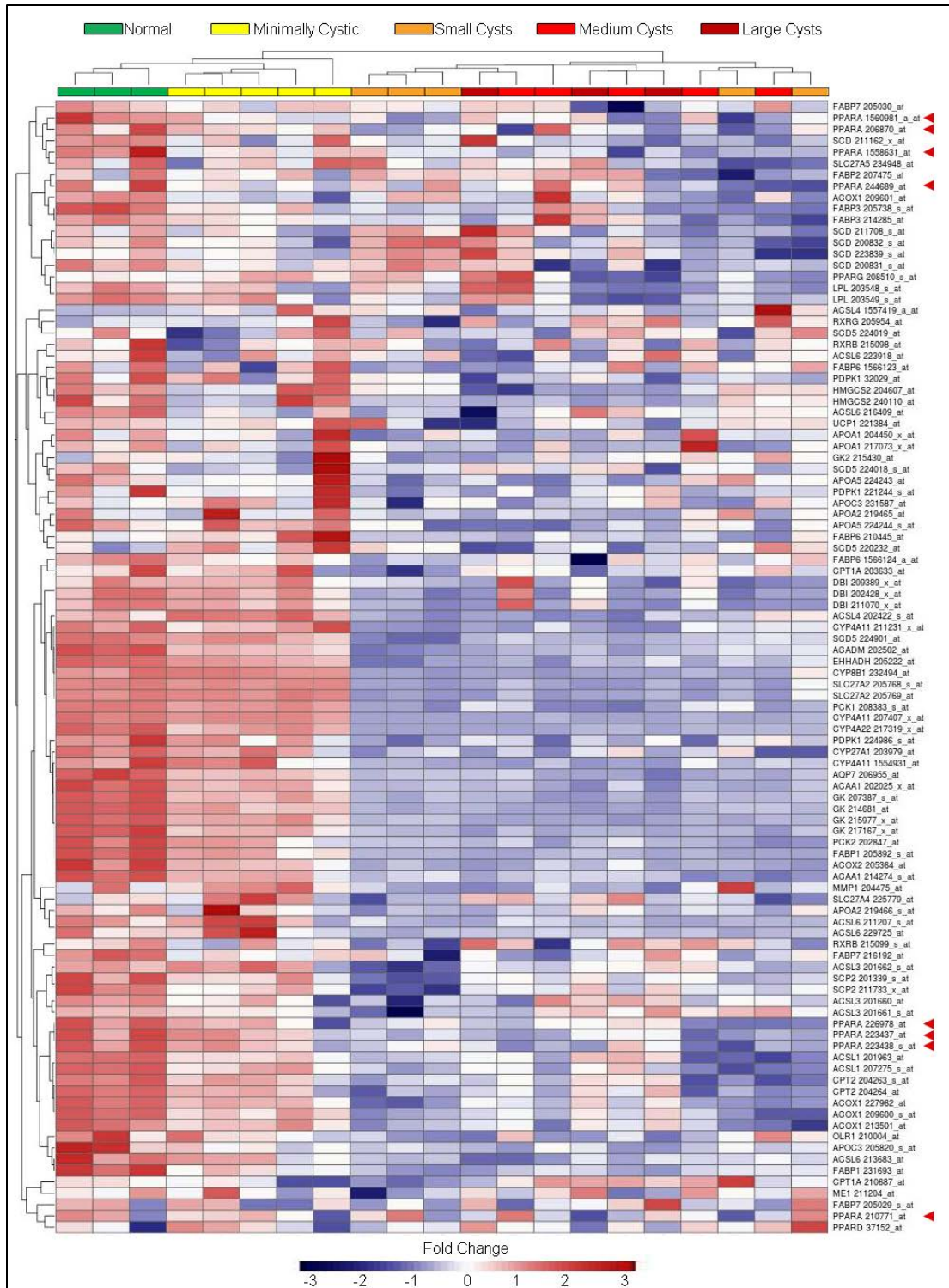




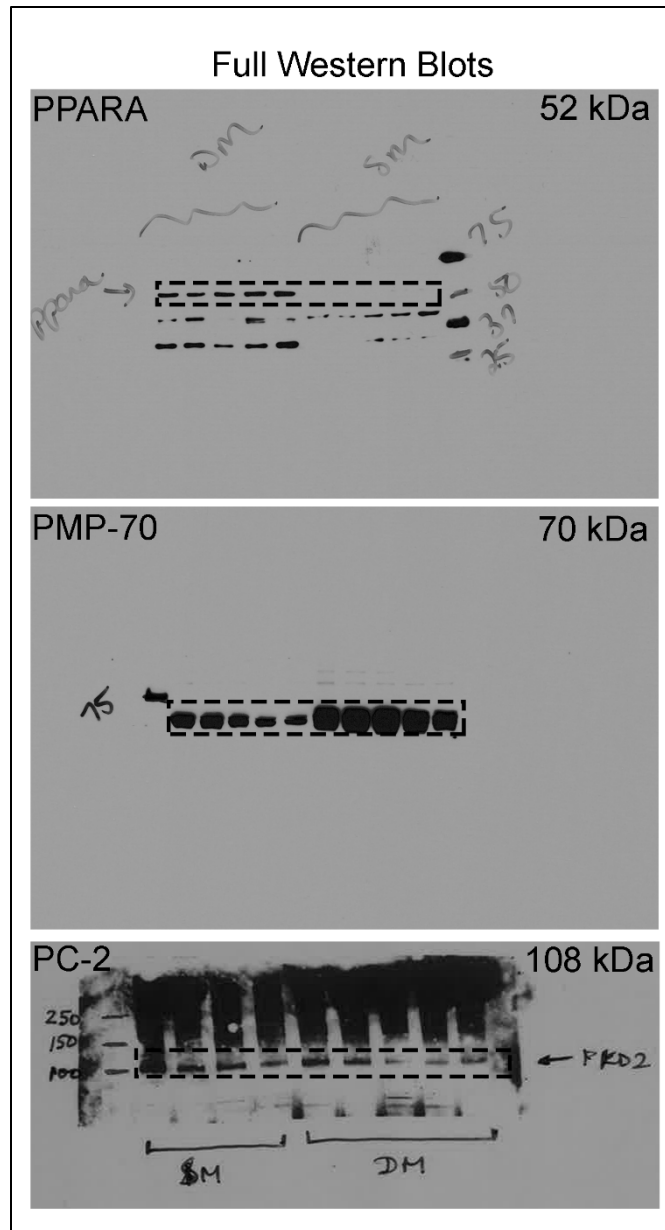
**Supplementary Figure 11:** To test whether reduced *Ppara* gene dosage is sufficient to enhance proliferation and promote cyst formation, 6-week old *Ppara*<sup>-/-</sup>, *Pkd1*<sup>RC/RC</sup>, and *Pkd1*<sup>RC/RC</sup>; *Ppara*-KO mice were characterized. Q-PCR analysis (A) *Kim1* and (B) *Ngal* in the indicated mouse models is shown. Error bars indicate SEM. Multiplicity adjusted P values using Tukey's multiple comparison test are shown.



**Supplementary Figure 12:** Characterization of cultured cells transfected with (A) miR-17 mimics and (B) PPARA-expressing plasmid (pPpara) is shown. To determine whether miR-17 affects OXPHOS, *Seahorse* XF 24 Analyzer was used to measure real-time mitochondrial oxygen consumption rate (OCR) of renal epithelial cells. (C) Real-time OCR tracings, (D) Basal OCR, (E) Oligomycin-treated OCR, and (F) ATP-dependent OCR of indicated cell lines is shown. ATP-dependent OCR was reduced in mIMCD3 cells treated with miR-17 mimics compared to scramble mimics. Reexpression of *Ppara* prevented miR-17-induced reductions in ATP-dependent OCR. (G&H) MTT assay was used to determine whether increased *Ppara* gene dosage inhibits miR-17-stimulated proliferation of renal epithelia. Treatment with miR-17 mimic increased proliferation of mIMCD3 cells. (G) Transfection with a *Ppara*-expressing plasmid (pPpara) reduced miR-17-stimulated proliferation whereas transfection with a control plasmid (pCMX) had no effect (n=3 biological replicates with three technical replicates). (H) Treatment with WY14643, a PPARA agonist, also reduced miR-17-stimulated proliferation whereas treatment with DMSO had no effect (n=3 biological replicates with three technical replicates). miR-17 mimic also increased proliferation of *Pkd2*<sup>-/-</sup> kidney epithelia. Similar to mIMCD3 cells, WY14643 reduced miR-17-stimulated proliferation of *Pkd2*<sup>-/-</sup> cells whereas treatment with DMSO had no effect (n=3 biological replicates with three technical replicates). One-way ANOVA, Tukey's multiple comparisons test (D-H) Student's unpaired *t*-test (A, B)



**Supplementary Figure 13:** Song *et al*<sup>2</sup>, have previously performed cDNA microarrays (Human Genome U133 Plus 2.0 Array, Affymetrix) using RNA from three normal renal cortical samples, five minimally cystic ADPKD tissue samples and 13 ADPKD cysts of varying sizes (small, medium, and large). Analysis of this publically-available data (<http://rged.wall-eva.net/>) revealed that *PPARA* (red arrow heads) and its targets are downregulated in human ADPKD cysts.



**Supplementary Figure 14:** The full, original Western blots are shown accompanied with indicated protein name (top left) and molecular weight (top right).

Supplementary Table 1: Differential expression of miRNAs in ADPKD models

miRNA	Pkd1-KO vs. Control				Pkd2-KO vs. Control			
	P10 AvgExp	Fold-change	P-value	FDR	P21 AvgExp	Fold-change	P-value	FDR
mmu-miR-29a	9.57	2.73	1.5E-05	0.00403	11.66	1.20	8.4E-02	0.37106
mmu-miR-126-3p	14.57	0.64	2.1E-05	0.00403	14.54	0.75	2.6E-04	0.00742
mmu-miR-200c	10.35	1.77	2.8E-05	0.00403	10.35	1.65	1.9E-03	0.02635
mmu-miR-96	9.83	3.91	3.0E-05	0.00403	9.44	5.54	2.4E-05	0.00182
mmu-miR-182	3.29	59.71	4.4E-05	0.00469	3.03	66.41	3.7E-06	0.00050
mmu-let-7g	13.35	0.81	6.0E-05	0.00524	13.46	0.82	5.5E-03	0.05630
mmu-miR-20a/b	12.20	1.23	6.8E-05	0.00524	11.43	1.51	8.2E-04	0.01637
mmu-miR-218	9.98	1.59	8.2E-05	0.00553	9.33	1.01	9.1E-01	1.00000
mmu-miR-183	8.28	4.80	9.7E-05	0.00578	7.81	3.88	1.4E-04	0.00454
mmu-miR-192	9.40	0.38	1.3E-04	0.00676	10.57	0.56	1.3E-03	0.01998
mmu-miR-204	9.96	0.44	1.8E-04	0.00856	10.24	0.66	2.0E-04	0.00608
mmu-miR-21	12.59	2.85	2.0E-04	0.00856	12.90	4.67	3.7E-06	0.00050
mmu-miR-196b	11.35	0.81	2.1E-04	0.00856	10.60	0.86	5.0E-02	0.26058
mmu-miR-194	9.86	0.40	2.7E-04	0.01041	10.74	0.64	2.2E-02	0.14702
mmu-let-7i	13.11	1.56	3.4E-04	0.01232	12.68	1.76	5.0E-05	0.00268
mmu-miR-199a-5p	12.49	1.35	3.7E-04	0.01257	10.87	2.54	9.1E-08	0.00005
mmu-miR-29b	7.27	2.83	4.1E-04	0.01289	9.66	1.37	2.0E-01	0.61661
mmu-miR-30e	10.21	0.64	4.6E-04	0.01375	10.68	0.61	2.7E-05	0.00182
mmu-miR-221	8.43	1.47	6.9E-04	0.01939	8.51	1.11	1.9E-01	0.59419
mmu-miR-100	9.53	1.35	7.6E-04	0.01943	8.89	1.43	2.3E-03	0.02940
mmu-miR-378	9.58	0.73	7.6E-04	0.01943	10.42	0.67	3.5E-03	0.03950
mmu-miR-223	7.48	2.54	8.0E-04	0.01964	7.99	4.16	7.1E-06	0.00076
mmu-miR-126-5p	10.56	0.70	9.0E-04	0.02103	10.59	0.78	1.2E-03	0.01951
mmu-miR-26b	10.10	0.71	1.4E-03	0.03028	10.35	0.76	8.1E-05	0.00335
mmu-miR-143	11.94	1.33	1.5E-03	0.03211	11.62	1.32	5.7E-02	0.28601
mmu-miR-199a-3p	12.68	1.28	1.6E-03	0.03384	11.23	2.84	1.4E-06	0.00038
mmu-miR-30c	12.78	0.67	1.7E-03	0.03425	13.00	0.64	2.6E-05	0.00182
mmu-miR-106a+mmu-miR-17	11.67	1.21	1.9E-03	0.03616	10.89	1.45	1.4E-04	0.00454
mmu-miR-351	6.50	2.22	2.5E-03	0.04499	3.60	0.43	1.9E-01	0.61071
mmu-miR-362-5p	4.37	2.11	2.5E-03	0.04499	3.92	1.83	2.3E-01	0.70273
mmu-miR-28	9.54	1.27	2.9E-03	0.04945	9.03	1.48	1.9E-03	0.02635
mmu-miR-340-5p	10.06	0.86	2.9E-03	0.04945	9.53	0.98	7.5E-01	1.00000
mmu-miR-151-5p	9.86	0.71	3.1E-03	0.04977	9.89	0.78	2.5E-02	0.15763
mmu-miR-375	1.50	7.96	3.4E-03	0.05350	5.26	2.50	4.7E-03	0.04931
mmu-miR-714	6.23	1.87	3.7E-03	0.05626	5.24	13.49	8.0E-02	0.36446
mmu-miR-200a	11.43	0.76	4.0E-03	0.05921	11.90	0.81	1.4E-02	0.10825
mmu-miR-148b	8.77	0.75	4.1E-03	0.05921	8.61	0.95	5.5E-01	1.00000
mmu-miR-185	6.02	0.67	4.4E-03	0.06098	6.51	0.70	9.5E-02	0.38502
mmu-miR-431	2.84	12.32	4.5E-03	0.06098	0.45	1.85	3.6E-01	0.73909
mmu-miR-345-5p	6.39	0.73	4.5E-03	0.06098	6.41	0.72	2.9E-02	0.17547
mmu-miR-1839-5p	7.39	0.72	5.6E-03	0.07323	7.17	0.63	1.1E-04	0.00427
mmu-miR-196a	10.09	0.82	5.8E-03	0.07365	9.66	0.79	2.5E-02	0.15930
mmu-miR-99a	10.82	0.63	5.9E-03	0.07365	10.86	0.74	2.9E-03	0.03403
mmu-miR-350	8.20	0.75	6.7E-03	0.08141	7.76	1.72	8.7E-04	0.01670
mmu-miR-532-5p	7.61	1.28	7.4E-03	0.08879	7.54	1.17	2.2E-02	0.14544
mmu-miR-132	7.51	1.69	8.6E-03	0.10007	7.70	2.24	3.9E-04	0.00990
mmu-miR-410	5.79	3.25	9.5E-03	0.10596	3.35	2.21	1.7E-01	0.55676
mmu-miR-200b	11.94	0.85	9.7E-03	0.10596	12.08	0.83	5.6E-03	0.05688



mmu-miR-1951	6.91	1.21	9.7E-03	0.10596	7.18	1.15	7.8E-02	0.35893
mmu-miR-188-5p	9.06	0.86	9.9E-03	0.10596	9.13	0.99	8.1E-01	1.00000
mmu-miR-135a	6.68	0.48	1.0E-02	0.10931	5.12	1.07	3.1E-01	0.73909
mmu-miR-150	8.04	0.53	1.1E-02	0.11236	8.93	1.04	8.6E-01	1.00000
mmu-miR-195	5.77	0.67	1.1E-02	0.11244	6.48	1.04	7.6E-01	1.00000
mmu-miR-301a	10.13	1.16	1.2E-02	0.11244	9.47	0.96	4.9E-02	0.25880
mmu-miR-10b	11.76	1.15	1.2E-02	0.11244	11.12	1.15	9.3E-02	0.38502
mmu-miR-434-3p	6.56	2.01	1.2E-02	0.11244	3.90	4.71	1.7E-01	0.55037
mmu-miR-222	6.24	1.39	1.2E-02	0.11554	6.70	1.07	6.7E-01	1.00000
mmu-miR-376b	5.61	2.31	1.2E-02	0.11554	3.07	4.45	1.5E-01	0.51487
mmu-miR-329	5.68	2.53	1.3E-02	0.11864	2.54	10.06	1.5E-02	0.11251
mmu-miR-140	8.88	0.76	1.4E-02	0.12447	9.11	0.84	2.1E-02	0.13969
mmu-miR-9	9.13	1.42	1.4E-02	0.12544	9.09	2.32	1.5E-03	0.02339
mmu-miR-26a	9.80	0.75	1.4E-02	0.12544	9.65	0.97	6.3E-01	1.00000
mmu-miR-411	5.00	2.91	1.6E-02	0.13319	2.01	4.69	8.8E-02	0.38299
mmu-miR-376c	6.02	3.10	1.6E-02	0.13446	4.01	2.19	9.2E-02	0.38502
mmu-miR-23a	11.15	1.20	1.8E-02	0.14539	11.41	1.04	3.2E-01	0.73909
mmu-miR-214	7.67	1.48	1.9E-02	0.15137	5.88	3.56	3.2E-03	0.03702
mmu-miR-335-5p	9.16	0.66	1.9E-02	0.15461	7.22	0.64	8.5E-03	0.07274
mmu-miR-181c	7.75	0.68	2.0E-02	0.15461	7.53	0.82	1.8E-02	0.12535
mmu-miR-379	1.53	8.32	2.1E-02	0.16152	0.00	1.00	1.0E+00	1.00000
mmu-miR-23b	11.21	0.81	2.1E-02	0.16152	11.55	0.78	6.8E-04	0.01468
mmu-let-7d	13.71	0.96	2.1E-02	0.16152	13.47	0.91	3.8E-02	0.21030
mmu-miR-127	6.63	2.69	2.3E-02	0.16809	4.74	2.60	8.2E-03	0.07178
mmu-miR-101a	8.31	0.73	2.4E-02	0.17543	8.72	0.74	1.9E-03	0.02635
mmu-miR-93	9.44	1.36	2.7E-02	0.19324	8.75	1.47	1.0E-03	0.01731
mmu-let-7a	14.18	0.88	2.8E-02	0.20385	14.09	0.88	1.8E-02	0.12535
mmu-miR-615-3p	4.55	0.46	3.1E-02	0.21785	3.42	1.27	5.6E-01	1.00000
mmu-miR-708	5.29	0.57	3.2E-02	0.22232	2.45	0.35	1.5E-01	0.50663
mmu-miR-1198	5.50	0.66	3.4E-02	0.23055	5.43	0.79	1.2E-01	0.44042
mmu-miR-690	2.07	0.22	3.4E-02	0.23055	2.12	1.03	9.7E-01	1.00000
mmu-miR-142-3p	8.87	1.68	3.6E-02	0.23959	9.67	4.69	6.0E-04	0.01412
mmu-miR-125a-3p	7.67	1.57	3.8E-02	0.24546	6.92	2.29	6.7E-02	0.32547
mmu-miR-148a	10.75	0.74	3.8E-02	0.24546	10.23	0.92	5.4E-01	1.00000
mmu-miR-551b	3.89	9.76	3.8E-02	0.24546	2.78	5.84	2.3E-02	0.14906
mmu-miR-425	7.03	0.79	3.8E-02	0.24546	7.34	0.82	3.1E-02	0.18013
mmu-miR-24	10.27	1.15	4.3E-02	0.26755	9.98	1.40	1.6E-03	0.02373
mmu-miR-15a	12.04	1.07	4.4E-02	0.26755	11.97	1.34	5.9E-03	0.05808
mmu-miR-187	5.12	0.36	4.4E-02	0.26755	5.50	0.39	3.1E-02	0.18125
mmu-miR-130b	8.53	0.75	4.4E-02	0.26755	6.81	1.07	6.8E-01	1.00000
mmu-miR-210	6.72	1.43	4.7E-02	0.28473	6.63	1.42	7.1E-02	0.33367
mmu-miR-328	6.62	0.69	4.8E-02	0.28473	6.94	0.62	2.8E-03	0.03399
mmu-miR-191	9.25	0.85	4.8E-02	0.28473	9.32	1.04	6.4E-01	1.00000
mmu-miR-338-3p	6.55	0.50	5.1E-02	0.29489	6.56	0.60	2.6E-02	0.15930
mmu-miR-141	9.06	1.60	5.1E-02	0.29714	9.49	1.42	1.1E-03	0.01810
mmu-let-7f	13.09	0.93	5.2E-02	0.29964	13.11	0.82	7.9E-03	0.07042
mmu-miR-335-3p	6.50	0.79	5.3E-02	0.30090	3.62	3.36	1.1E-01	0.40841
mmu-miR-22	12.63	1.14	5.4E-02	0.30457	13.41	0.99	7.1E-01	1.00000
mmu-miR-382	5.53	2.58	6.4E-02	0.35675	2.57	6.95	8.0E-02	0.36446
mmu-miR-139-5p	5.66	0.37	6.5E-02	0.35845	6.04	0.84	1.3E-01	0.46334
mmu-miR-324-5p	8.01	0.84	6.7E-02	0.36220	7.09	1.22	3.1E-02	0.18125
mmu-miR-484	8.32	0.91	6.8E-02	0.36220	7.94	1.31	2.7E-02	0.16268
mmu-miR-450a-5p	10.36	0.83	6.9E-02	0.36220	9.23	0.70	2.2E-03	0.02910
mmu-miR-331-3p	7.03	1.21	6.9E-02	0.36220	6.16	1.22	2.5E-01	0.73027
mmu-miR-202-5p	4.57	1.49	7.1E-02	0.36935	4.49	0.86	6.5E-01	1.00000

mmu-miR-30b	12.29	0.84	7.2E-02	0.36935	12.72	1.05	5.2E-01	1.00000
mmu-miR-433	4.09	7.96	7.3E-02	0.37111	0.98	2.66	2.1E-01	0.64896
mmu-miR-434-5p	4.81	1.87	7.8E-02	0.39354	2.03	16.56	3.1E-05	0.00182
mmu-miR-872	8.35	0.84	7.8E-02	0.39354	7.71	1.10	1.1E-01	0.40841
mmu-miR-762	7.59	2.02	8.0E-02	0.39851	7.45	5.34	2.4E-02	0.15570
mmu-miR-16	13.38	1.09	8.1E-02	0.40015	13.38	1.24	2.3E-03	0.02940
mmu-miR-495	5.45	1.77	8.8E-02	0.43133	3.84	2.65	1.1E-01	0.41370
mmu-miR-134	2.61	4.56	9.1E-02	0.44113	0.00	1.00	1.0E+00	1.00000
mmu-miR-107	9.30	0.44	9.2E-02	0.44183	9.33	0.95	6.4E-01	1.00000
mmu-miR-802	4.38	0.19	9.6E-02	0.44663	5.89	0.42	1.1E-02	0.08482
mmu-miR-377	7.35	1.46	9.7E-02	0.44663	6.42	1.37	5.3E-02	0.27256
mmu-miR-1941-3p	2.81	0.24	1.0E-01	0.44663	1.28	0.76	7.8E-01	1.00000
mmu-miR-717	2.01	4.21	1.0E-01	0.44663	2.12	0.46	2.8E-01	0.73909
mmu-miR-770-3p	1.20	0.19	1.0E-01	0.44663	0.00	1.00	1.0E+00	1.00000
mmu-miR-873	1.18	5.11	1.0E-01	0.44663	0.00	1.00	1.0E+00	1.00000
mmu-miR-1187	0.75	0.35	1.0E-01	0.44663	0.45	1.86	3.6E-01	0.73909
mmu-miR-322	11.00	1.23	1.0E-01	0.44663	9.70	1.03	7.9E-01	1.00000
mmu-miR-759	1.02	4.08	1.0E-01	0.44663	0.30	1.51	3.6E-01	0.73909
mmu-miR-669e	0.88	3.39	1.0E-01	0.44663	0.11	0.86	3.6E-01	0.73909
mmu-miR-18a	0.92	3.60	1.0E-01	0.44663	0.00	1.00	1.0E+00	1.00000
mmu-miR-493	1.00	3.98	1.1E-01	0.48339	0.00	1.00	1.0E+00	1.00000
mmu-miR-290-5p	0.95	3.71	1.2E-01	0.51831	0.00	1.00	1.0E+00	1.00000
mmu-miR-144	10.02	0.54	1.2E-01	0.52051	10.73	2.17	1.6E-01	0.53314
mmu-miR-412	0.21	1.34	1.2E-01	0.52051	0.00	1.00	1.0E+00	1.00000
mmu-let-7b	13.43	1.13	1.2E-01	0.52051	13.76	1.02	4.9E-01	0.99495
mmu-miR-30a	11.96	0.83	1.3E-01	0.52992	12.20	0.79	1.1E-02	0.08482
mmu-miR-146a	8.91	0.89	1.3E-01	0.54734	9.12	1.82	4.0E-03	0.04488
mmu-miR-676	6.21	1.27	1.5E-01	0.60942	5.81	1.02	9.3E-01	1.00000
mmu-miR-145	13.50	1.09	1.5E-01	0.61019	13.40	0.87	4.6E-02	0.24881
mmu-miR-138	6.36	0.92	1.6E-01	0.64734	5.71	1.25	1.0E-02	0.08172
mmu-miR-451	10.67	0.54	1.6E-01	0.64734	11.89	2.02	1.9E-01	0.59419
mmu-miR-3471	4.62	2.41	1.6E-01	0.64734	2.28	1.37	7.4E-01	1.00000
mmu-miR-31	5.79	1.60	1.6E-01	0.64932	5.70	3.16	3.1E-04	0.00832
mmu-miR-743a	0.96	0.39	1.8E-01	0.68475	0.00	1.00	1.0E+00	1.00000
mmu-miR-190b	7.82	1.09	1.8E-01	0.68475	8.02	1.21	4.5E-03	0.04893
mmu-miR-342-3p	8.64	0.91	1.8E-01	0.68475	8.33	1.06	5.3E-01	1.00000
mmu-miR-34a	6.57	1.36	1.8E-01	0.68475	6.82	1.25	7.0E-02	0.33367
mmu-miR-466c-5p	1.50	0.24	1.9E-01	0.72193	0.00	1.00	1.0E+00	1.00000
mmu-miR-574-3p	7.23	1.24	1.9E-01	0.72769	6.92	1.60	1.8E-02	0.12535
mmu-miR-409-5p	0.63	2.41	2.1E-01	0.77229	0.00	1.00	1.0E+00	1.00000
mmu-miR-695	1.14	2.76	2.1E-01	0.78229	0.00	1.00	1.0E+00	1.00000
mmu-miR-574-5p	1.33	3.59	2.1E-01	0.78949	0.64	2.43	1.0E-01	0.40699
mmu-miR-181a	12.51	0.95	2.2E-01	0.80350	11.93	0.84	5.3E-02	0.27256
mmu-miR-128	5.97	0.63	2.2E-01	0.81702	5.34	1.16	5.7E-01	1.00000
mmu-miR-346	3.52	0.28	2.3E-01	0.82975	0.03	1.04	3.6E-01	0.73909
mmu-miR-455	5.87	0.73	2.3E-01	0.82975	5.35	0.83	3.9E-01	0.80367
mmu-miR-501-5p	3.73	1.23	2.3E-01	0.83208	2.52	4.89	6.7E-02	0.32520
mmu-miR-154	8.85	0.92	2.4E-01	0.83208	8.76	1.06	1.7E-01	0.55869
mmu-miR-369-3p	6.35	1.48	2.4E-01	0.83208	4.23	2.77	9.0E-02	0.38355
mmu-miR-33	5.65	0.81	2.4E-01	0.84014	5.79	1.13	2.8E-01	0.73909
mmu-miR-25	11.37	1.07	2.4E-01	0.84014	10.61	1.32	8.3E-03	0.07195
mmu-miR-450b-3p	2.90	0.34	2.5E-01	0.85454	1.24	0.19	1.1E-01	0.40852
mmu-miR-193	5.46	1.32	2.5E-01	0.85454	6.41	0.93	6.7E-01	1.00000
mmu-miR-691	3.73	0.25	2.5E-01	0.85533	5.12	0.40	5.8E-02	0.28601
mmu-miR-296-5p	8.11	0.92	2.5E-01	0.86411	6.37	1.09	6.4E-01	1.00000

mmu-miR-1955	7.67	1.13	2.6E-01	0.86411	7.79	1.07	3.1E-01	0.73909
mmu-miR-133a	2.93	0.35	2.6E-01	0.86991	1.30	1.58	7.4E-01	1.00000
mmu-miR-103	10.18	0.52	2.7E-01	0.86991	10.23	1.22	4.7E-02	0.24941
mmu-miR-1188	1.57	0.30	2.7E-01	0.86991	0.55	2.14	3.6E-01	0.73909
mmu-miR-331-5p	3.88	0.29	2.8E-01	0.86991	3.59	0.74	9.4E-02	0.38502
mmu-miR-361	8.61	0.87	2.8E-01	0.86991	8.24	1.00	9.7E-01	1.00000
mmu-miR-486	5.07	0.57	2.9E-01	0.86991	6.85	2.06	2.6E-01	0.73909
mmu-miR-500	1.48	3.05	2.9E-01	0.86991	1.93	5.50	5.6E-02	0.28248
mmu-miR-19a	10.77	1.05	2.9E-01	0.86991	10.06	1.49	5.0E-04	0.01219
mmu-miR-30d	11.11	0.91	3.1E-01	0.86991	11.55	0.94	2.8E-01	0.73909
mmu-miR-380-3p	2.13	2.89	3.1E-01	0.86991	0.52	2.05	3.6E-01	0.73909
mmu-miR-205	8.81	1.26	3.2E-01	0.86991	8.84	1.87	7.1E-02	0.33367
mmu-miR-466d-3p	3.61	0.35	3.3E-01	0.86991	3.69	2.15	1.3E-01	0.46039
mmu-miR-208b	4.23	1.50	3.4E-01	0.86991	4.32	0.84	2.3E-01	0.71079
mmu-miR-129-5p	1.13	0.48	3.4E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-678	4.80	0.52	3.4E-01	0.86991	3.88	1.20	3.5E-01	0.73909
mmu-miR-501-3p	0.63	2.41	3.5E-01	0.86991	1.18	1.67	5.4E-01	1.00000
mmu-miR-1895	0.63	2.41	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-137	0.59	0.44	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-544	0.58	2.24	3.5E-01	0.86991	0.71	1.66	4.0E-01	0.81823
mmu-miR-1904	0.58	2.24	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-212	0.54	2.12	3.5E-01	0.86991	1.21	5.34	1.0E-01	0.40699
mmu-miR-466d-5p	0.49	1.97	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-487b	0.47	1.91	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-1961	0.46	0.53	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-105	0.41	1.77	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-216a	0.41	1.77	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-1	0.40	1.73	3.5E-01	0.86991	0.88	3.38	2.4E-01	0.72182
mmu-miR-1193	0.40	1.73	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-876-5p	0.38	0.59	3.5E-01	0.86991	2.83	0.47	4.9E-01	0.98007
mmu-miR-880	0.38	0.59	3.5E-01	0.86991	0.15	1.23	3.6E-01	0.73909
mmu-miR-767	0.37	0.60	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-337-5p	0.35	1.63	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-342-5p	0.35	1.63	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-1945	0.31	0.65	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-1949	0.30	1.52	3.5E-01	0.86991	0.70	2.63	3.3E-01	0.73909
mmu-miR-1199	0.30	1.52	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-669h-5p	0.23	1.38	3.5E-01	0.86991	0.52	2.05	1.1E-01	0.40841
mmu-miR-1943	0.23	1.38	3.5E-01	0.86991	0.57	2.20	3.6E-01	0.73909
mmu-miR-344	0.23	1.38	3.5E-01	0.86991	0.35	1.63	3.6E-01	0.73909
mmu-miR-3474	0.23	1.38	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-466l	0.23	1.38	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-2137	0.21	1.34	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-874	0.17	0.79	3.5E-01	0.86991	0.55	0.47	3.6E-01	0.73909
mmu-miR-488	0.17	0.79	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-743b-3p	0.17	0.79	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-667	0.14	1.21	3.5E-01	0.86991	0.40	0.57	3.6E-01	0.73909
mmu-miR-1963	0.14	0.83	3.5E-01	0.86991	0.03	1.04	3.6E-01	0.73909
mmu-miR-301b	0.13	1.20	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-449a	0.13	1.20	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-491	0.13	1.20	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-496	0.13	1.20	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-688	0.13	1.20	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-666-3p	0.09	0.88	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000

mmu-miR-761	0.09	0.88	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-1947	0.08	1.12	3.5E-01	0.86991	0.94	0.86	8.8E-01	1.00000
mmu-miR-1893	0.08	1.12	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-290-3p	0.08	1.12	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-3475	0.08	1.12	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-684	0.08	1.12	3.5E-01	0.86991	0.00	1.00	1.0E+00	1.00000
mmu-miR-201	3.78	0.59	3.7E-01	0.90691	2.41	2.70	2.7E-01	0.73909
mmu-miR-19b	10.61	0.93	3.7E-01	0.90691	9.88	1.51	6.9E-05	0.00316
mmu-miR-130a	13.06	0.98	3.7E-01	0.90691	12.45	0.98	8.0E-01	1.00000
mmu-miR-709	3.56	0.38	3.8E-01	0.92808	4.35	1.51	7.3E-03	0.06637
mmu-miR-466a/b-3p	5.77	0.86	3.9E-01	0.93880	5.05	1.17	3.2E-01	0.73909
mmu-miR-741	4.83	1.24	3.9E-01	0.93926	4.79	0.53	1.3E-01	0.45196
mmu-miR-323-5p	1.23	2.17	3.9E-01	0.93995	0.00	1.00	1.0E+00	1.00000
mmu-miR-206	1.97	0.29	4.0E-01	0.94227	1.34	6.44	1.0E-02	0.08172
mmu-miR-106b	10.04	0.96	4.0E-01	0.94831	9.41	1.46	6.5E-04	0.01461
mmu-miR-423-3p	7.61	0.85	4.1E-01	0.95126	7.17	0.84	1.4E-01	0.50168
mmu-miR-532-3p	6.26	0.78	4.1E-01	0.95126	5.25	2.73	6.5E-03	0.06117
mmu-miR-7b	2.56	0.46	4.1E-01	0.95924	2.20	0.90	9.0E-01	1.00000
mmu-miR-582-5p	1.88	0.35	4.1E-01	0.95924	4.00	0.28	9.4E-02	0.38502
mmu-miR-423-5p	7.99	1.08	4.1E-01	0.95924	7.85	0.99	8.5E-01	1.00000
mmu-miR-547	1.23	1.97	4.2E-01	0.96182	2.89	1.06	8.4E-01	1.00000
mmu-miR-133b	0.99	0.58	4.2E-01	0.97489	0.11	0.86	3.6E-01	0.73909
mmu-miR-664	4.54	1.34	4.3E-01	0.99199	4.73	1.04	9.1E-01	1.00000
mmu-miR-497	7.64	0.92	4.4E-01	0.99811	7.58	1.78	9.6E-04	0.01716
mmu-miR-1224	5.52	1.39	4.4E-01	1.00000	5.58	2.85	7.0E-03	0.06488
mmu-miR-1929	3.31	2.24	4.5E-01	1.00000	3.21	1.80	3.2E-01	0.73909
mmu-miR-1903	1.54	2.20	4.5E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-7a	1.91	0.37	4.6E-01	1.00000	0.78	2.96	8.1E-02	0.36446
mmu-miR-202-3p	0.46	0.66	4.6E-01	1.00000	0.34	1.61	3.6E-01	0.73909
mmu-miR-297c	5.83	0.76	4.6E-01	1.00000	5.41	1.27	3.9E-01	0.79461
mmu-miR-701	3.69	0.44	4.7E-01	1.00000	0.73	2.75	1.5E-01	0.50663
mmu-miR-122	3.64	3.66	4.7E-01	1.00000	5.29	1.33	8.0E-01	1.00000
mmu-miR-181b/d	6.96	0.86	4.8E-01	1.00000	5.81	1.27	1.7E-02	0.12535
mmu-miR-542-5p	5.44	0.81	4.8E-01	1.00000	3.73	0.83	5.3E-01	1.00000
mmu-miR-875-5p	1.39	1.95	4.8E-01	1.00000	0.48	1.95	3.6E-01	0.73909
mmu-miR-672	3.94	1.65	4.9E-01	1.00000	1.52	8.19	9.4E-04	0.01716
mmu-miR-1942	1.99	0.38	4.9E-01	1.00000	1.56	2.20	3.5E-01	0.73909
mmu-miR-101b	8.39	0.92	4.9E-01	1.00000	8.16	0.92	1.5E-01	0.50663
mmu-miR-193b	7.06	0.92	5.0E-01	1.00000	7.26	0.90	1.5E-01	0.50663
mmu-miR-136	8.59	1.11	5.1E-01	1.00000	7.63	1.32	3.9E-02	0.21620
mmu-miR-876-3p	1.36	2.08	5.1E-01	1.00000	4.58	0.34	1.3E-04	0.00449
mmu-miR-489	5.07	1.17	5.2E-01	1.00000	4.80	1.16	4.8E-01	0.98007
mmu-miR-1194	1.96	0.42	5.2E-01	1.00000	0.48	1.95	3.6E-01	0.73909
mmu-miR-505	1.82	0.48	5.2E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1983	4.43	1.19	5.2E-01	1.00000	0.22	0.74	3.6E-01	0.73909
mmu-miR-326	6.01	0.96	5.2E-01	1.00000	6.48	0.86	3.2E-01	0.73909
mmu-miR-1933-5p	1.48	2.04	5.3E-01	1.00000	3.68	0.78	5.5E-01	1.00000
mmu-miR-700	1.57	1.96	5.4E-01	1.00000	0.30	1.51	3.6E-01	0.73909
mmu-miR-2183	7.67	0.85	5.4E-01	1.00000	7.47	1.04	7.0E-01	1.00000
mmu-miR-665	1.39	1.80	5.4E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-190	4.98	0.75	5.4E-01	1.00000	6.54	0.69	6.5E-02	0.32186
mmu-miR-98	10.30	0.95	5.6E-01	1.00000	10.28	0.87	4.6E-03	0.04893
mmu-miR-125b-3p	5.59	0.92	5.6E-01	1.00000	5.50	0.96	8.6E-01	1.00000
mmu-miR-541	3.29	1.85	5.6E-01	1.00000	0.67	2.52	7.1E-02	0.33367
mmu-miR-29c	9.04	0.97	5.7E-01	1.00000	11.17	0.69	1.6E-02	0.11999

mmu-miR-3472	1.98	0.54	5.7E-01	1.00000	0.46	1.88	1.0E-01	0.40699
mmu-miR-224	2.29	1.98	5.7E-01	1.00000	1.39	6.84	7.3E-04	0.01506
mmu-miR-1306	2.42	0.54	5.7E-01	1.00000	1.46	4.12	1.8E-02	0.12700
mmu-miR-92b	5.72	1.20	5.7E-01	1.00000	4.57	1.06	6.5E-01	1.00000
mmu-miR-713	0.77	0.62	5.8E-01	1.00000	0.76	1.79	3.6E-01	0.73966
mmu-miR-669a	4.63	0.79	5.8E-01	1.00000	3.91	1.52	2.8E-01	0.73909
mmu-miR-153	2.06	0.55	5.8E-01	1.00000	0.29	1.50	3.6E-01	0.73909
mmu-miR-539	5.26	0.79	5.9E-01	1.00000	4.34	1.69	8.8E-02	0.38299
mmu-miR-1900	2.78	1.63	6.0E-01	1.00000	0.29	1.50	3.6E-01	0.73909
mmu-miR-467f	4.39	0.59	6.0E-01	1.00000	4.19	2.04	4.6E-02	0.24881
mmu-miR-1892	0.79	0.64	6.0E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-669o	2.36	0.64	6.1E-01	1.00000	3.43	1.76	2.2E-01	0.69037
mmu-miR-871	1.98	0.60	6.2E-01	1.00000	0.89	3.43	1.1E-01	0.41741
mmu-miR-1964	1.31	1.47	6.2E-01	1.00000	0.17	0.79	3.6E-01	0.73909
mmu-miR-340-3p	5.45	0.92	6.3E-01	1.00000	5.26	0.90	5.7E-01	1.00000
mmu-miR-362-3p	5.05	0.90	6.3E-01	1.00000	5.51	2.18	1.0E-02	0.08271
mmu-miR-2139	4.52	0.71	6.3E-01	1.00000	3.55	1.47	2.5E-01	0.73909
mmu-miR-882	1.64	1.72	6.4E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1839-3p	5.36	0.84	6.5E-01	1.00000	4.91	1.14	5.5E-01	1.00000
mmu-miR-429	12.49	0.97	6.5E-01	1.00000	12.24	0.94	1.6E-01	0.53314
mmu-miR-27b	8.10	1.02	6.6E-01	1.00000	8.16	0.87	3.3E-01	0.73909
mmu-miR-367	4.10	0.76	6.6E-01	1.00000	2.35	6.74	3.2E-02	0.18367
mmu-miR-421	7.01	0.92	6.6E-01	1.00000	6.29	1.13	9.6E-02	0.38909
mmu-miR-3473	3.38	1.33	6.7E-01	1.00000	1.02	4.09	2.6E-02	0.15930
mmu-miR-34b-3p	0.69	0.73	6.7E-01	1.00000	0.03	1.04	3.6E-01	0.73909
mmu-miR-879	0.69	0.73	6.7E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-466g	6.52	1.04	6.7E-01	1.00000	6.38	1.03	8.4E-01	1.00000
mmu-miR-374	8.69	0.97	6.8E-01	1.00000	8.29	1.10	1.5E-01	0.50663
mmu-miR-432	2.11	0.62	6.8E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1981	5.83	1.09	6.9E-01	1.00000	6.06	1.02	9.3E-01	1.00000
mmu-miR-320	1.68	1.42	6.9E-01	1.00000	2.12	0.49	5.0E-01	1.00000
mmu-miR-542-3p	1.64	1.58	7.0E-01	1.00000	0.35	1.63	3.6E-01	0.73909
mmu-miR-674	5.71	1.10	7.0E-01	1.00000	5.06	1.28	8.1E-02	0.36446
mmu-miR-467c	2.60	1.32	7.0E-01	1.00000	3.77	1.36	2.8E-01	0.73909
mmu-miR-503	5.04	1.04	7.0E-01	1.00000	0.92	0.63	3.3E-01	0.73909
mmu-miR-490	1.00	0.67	7.0E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-466k	3.64	0.69	7.0E-01	1.00000	0.84	1.19	8.3E-01	1.00000
mmu-miR-1894-5p	0.93	0.74	7.1E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-125a-5p	13.19	0.99	7.1E-01	1.00000	12.35	1.15	6.2E-03	0.05986
mmu-miR-467e	5.40	0.91	7.2E-01	1.00000	4.81	1.66	1.1E-01	0.40818
mmu-miR-292-5p	1.04	1.47	7.2E-01	1.00000	2.21	1.06	9.6E-01	1.00000
mmu-miR-669j	0.71	1.24	7.2E-01	1.00000	0.23	1.37	3.6E-01	0.73909
mmu-miR-760	1.15	0.74	7.3E-01	1.00000	0.15	1.23	3.6E-01	0.73909
mmu-miR-1960	2.00	0.69	7.3E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1197	0.90	1.37	7.3E-01	1.00000	0.12	1.18	3.6E-01	0.73909
mmu-miR-151-3p	6.05	1.06	7.5E-01	1.00000	6.22	1.02	6.7E-01	1.00000
mmu-miR-99b	11.12	0.98	7.5E-01	1.00000	10.30	1.10	9.1E-02	0.38502
mmu-miR-149	5.46	1.06	7.5E-01	1.00000	4.91	0.48	8.9E-02	0.38299
mmu-miR-467h+mmu-miR-669d/l	0.55	0.84	7.6E-01	1.00000	0.15	1.23	3.6E-01	0.73909
mmu-miR-300	4.60	1.25	7.7E-01	1.00000	1.17	2.35	2.9E-01	0.73909
mmu-miR-669f	8.15	0.99	7.7E-01	1.00000	7.51	1.01	9.5E-01	1.00000
mmu-miR-155	6.98	0.85	7.7E-01	1.00000	7.41	1.00	9.8E-01	1.00000
mmu-miR-470	0.43	1.13	7.8E-01	1.00000	0.76	0.35	1.0E-01	0.40699
mmu-miR-298	2.78	1.31	7.8E-01	1.00000	1.04	1.97	3.4E-01	0.73909
mmu-miR-671-3p	1.97	1.33	7.8E-01	1.00000	0.23	1.37	3.6E-01	0.73909

mmu-miR-804	3.98	1.23	7.8E-01	1.00000	4.36	7.09	1.0E-02	0.08172
mmu-miR-467g	2.64	0.69	7.8E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-323-3p	1.66	1.39	7.9E-01	1.00000	0.75	1.31	7.3E-01	1.00000
mmu-miR-485	0.78	1.16	7.9E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-124	2.17	1.36	7.9E-01	1.00000	0.34	1.61	3.6E-01	0.73909
mmu-miR-652	7.13	1.03	8.0E-01	1.00000	6.56	1.15	2.5E-01	0.73027
mmu-miR-509-5p	1.70	0.74	8.0E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-467a	4.81	0.93	8.1E-01	1.00000	4.53	1.72	1.8E-01	0.58413
mmu-miR-1941-5p	2.50	0.73	8.1E-01	1.00000	0.36	1.64	1.4E-01	0.49465
mmu-miR-146b	6.21	0.97	8.1E-01	1.00000	6.12	1.22	3.4E-01	0.73909
mmu-miR-152	10.84	1.01	8.2E-01	1.00000	10.43	1.06	2.4E-01	0.72508
mmu-miR-376a	8.85	0.92	8.2E-01	1.00000	8.39	1.15	3.9E-01	0.79841
mmu-miR-463	1.42	0.84	8.3E-01	1.00000	0.23	1.37	3.6E-01	0.73909
mmu-miR-129-3p	1.03	0.80	8.3E-01	1.00000	0.43	1.81	3.1E-01	0.73909
mmu-miR-883b-3p	4.97	1.06	8.4E-01	1.00000	4.12	0.97	9.1E-01	1.00000
mmu-miR-338-5p	2.63	0.83	8.4E-01	1.00000	2.07	0.63	6.0E-01	1.00000
mmu-miR-770-5p	1.45	0.77	8.5E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1953	2.65	1.30	8.5E-01	1.00000	3.60	0.65	2.9E-01	0.73909
mmu-miR-1956	2.12	0.82	8.5E-01	1.00000	0.45	1.85	3.6E-01	0.73909
mmu-miR-1192	0.78	0.88	8.5E-01	1.00000	0.14	0.83	3.6E-01	0.73909
mmu-let-7c	14.41	1.00	8.6E-01	1.00000	14.77	1.04	3.5E-01	0.73909
mmu-miR-1957	2.36	0.80	8.6E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-142-5p	5.94	1.03	8.6E-01	1.00000	6.66	0.91	6.1E-01	1.00000
mmu-miR-15b	11.80	1.02	8.6E-01	1.00000	11.10	1.71	2.5E-03	0.03063
mmu-miR-125b-5p	13.88	0.99	8.7E-01	1.00000	13.72	1.14	2.7E-02	0.16268
mmu-miR-710	2.09	0.84	8.7E-01	1.00000	0.23	1.37	3.6E-01	0.73909
mmu-miR-1928	2.74	0.80	8.7E-01	1.00000	0.94	2.00	2.3E-01	0.69608
mmu-miR-27a	12.17	1.01	8.8E-01	1.00000	12.05	1.27	9.5E-03	0.08002
mmu-miR-875-3p	1.77	1.15	8.8E-01	1.00000	0.14	0.83	3.6E-01	0.73909
mmu-miR-369-5p	2.88	0.85	8.8E-01	1.00000	0.23	1.38	3.6E-01	0.73909
mmu-miR-675-5p	2.66	0.86	8.9E-01	1.00000	0.45	1.85	3.6E-01	0.73909
mmu-miR-668	0.88	0.88	8.9E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-483	1.78	1.18	8.9E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1946a	2.65	0.89	8.9E-01	1.00000	0.37	0.87	7.1E-01	1.00000
mmu-miR-32	8.90	1.01	8.9E-01	1.00000	9.07	0.87	8.4E-02	0.37106
mmu-miR-34b-5p	2.22	1.18	8.9E-01	1.00000	3.07	1.65	3.5E-02	0.19756
mmu-miR-381	3.63	1.13	9.0E-01	1.00000	0.24	1.39	3.6E-01	0.73909
mmu-miR-1958	1.89	1.14	9.0E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-683	2.41	0.86	9.1E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-883b-5p	1.47	1.09	9.1E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1195	2.32	1.14	9.1E-01	1.00000	0.30	1.51	3.6E-01	0.73909
mmu-miR-1931	0.64	1.07	9.2E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-883a-3p	0.78	0.93	9.3E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1902	7.56	1.02	9.3E-01	1.00000	8.24	1.51	5.8E-03	0.05792
mmu-miR-764-3p	3.25	0.88	9.4E-01	1.00000	2.48	4.42	3.7E-02	0.20428
mmu-miR-764-5p	2.35	1.09	9.5E-01	1.00000	1.08	1.29	7.6E-01	1.00000
mmu-miR-669i	2.26	0.93	9.5E-01	1.00000	1.68	0.28	2.4E-01	0.72198
mmu-miR-203	8.53	1.00	9.6E-01	1.00000	8.59	0.86	2.5E-01	0.73909
mmu-miR-3470a/b	1.13	0.95	9.6E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-330	2.06	1.05	9.6E-01	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-670	2.06	0.95	9.6E-01	1.00000	2.40	1.96	3.7E-01	0.76569
mmu-let-7e	12.18	1.00	9.7E-01	1.00000	11.64	1.10	1.3E-01	0.45196
mmu-miR-184	3.12	1.06	9.7E-01	1.00000	1.00	3.99	1.1E-01	0.41741
mmu-miR-877	2.86	0.97	9.8E-01	1.00000	1.13	4.76	1.0E-01	0.40699
mmu-miR-365	9.53	1.00	9.8E-01	1.00000	9.96	0.86	1.8E-01	0.57529

mmu-miR-654-3p	2.61	0.98	9.9E-01	1.00000	0.40	1.75	7.1E-05	0.00316
mmu-miR-363	0.00	1.00	1.0E+00	1.00000	0.91	0.29	1.1E-01	0.40841
mmu-miR-337-3p	0.00	1.00	1.0E+00	1.00000	0.33	1.57	3.0E-01	0.73909
mmu-miR-467b	0.00	1.00	1.0E+00	1.00000	0.60	0.43	3.6E-01	0.73909
mmu-miR-1191	0.00	1.00	1.0E+00	1.00000	0.40	0.57	3.6E-01	0.73909
mmu-miR-302d	0.00	1.00	1.0E+00	1.00000	0.40	0.57	3.6E-01	0.73909
mmu-miR-743b-5p	0.00	1.00	1.0E+00	1.00000	0.40	0.57	3.6E-01	0.73909
mmu-miR-219	0.00	1.00	1.0E+00	1.00000	0.23	1.38	3.6E-01	0.73909
mmu-miR-292-3p	0.00	1.00	1.0E+00	1.00000	0.15	1.23	3.6E-01	0.73909
mmu-miR-1982	0.00	1.00	1.0E+00	1.00000	0.14	0.83	3.6E-01	0.73909
mmu-miR-1901	0.00	1.00	1.0E+00	1.00000	0.12	1.18	3.6E-01	0.73909
mmu-miR-465b-5p	0.00	1.00	1.0E+00	1.00000	0.11	0.86	3.6E-01	0.73909
mmu-miR-742	0.00	1.00	1.0E+00	1.00000	0.11	0.86	3.6E-01	0.73909
mmu-miR-92a	0.00	1.00	1.0E+00	1.00000	0.03	1.04	3.6E-01	0.73909
mmu-miR-450b-5p	0.00	1.00	1.0E+00	1.00000	0.94	1.40	7.3E-01	1.00000
mmu-miR-546	0.00	1.00	1.0E+00	1.00000	0.23	1.02	9.3E-01	1.00000
mmu-miR-1186	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1190	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-135b	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-139-3p	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-147	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-186	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-188-3p	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1894-3p	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1896	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1897-3p	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1898	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1899	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-18b	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1905	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1906	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1907	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1927	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1930	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1932	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1933-3p	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1934	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1936	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1938	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1946b	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1948	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1950	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1952	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1954	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1962	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1966	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1967	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1968	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1969	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1970	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-1971	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-207	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-208a	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-211	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000
mmu-miR-2136	0.00	1.00	1.0E+00	1.00000	0.00	1.00	1.0E+00	1.00000







Supplementary Table 2: Commonly Dysregulated miRNAs in ADPKD models.

UP	DOWN
mmu-miR-182	mmu-let-7g
mmu-miR-183	mmu-miR-99a
mmu-miR-96	mmu-miR-126-3p
mmu-miR-21	mmu-miR-151-5p
mmu-miR-223	mmu-miR-196a
mmu-miR-199a-3p	mmu-miR-26b
mmu-miR-199a-5p	mmu-miR-126-5p
mmu-miR-200c	mmu-miR-30c
mmu-miR-100	mmu-miR-185
mmu-miR-350	mmu-miR-30e
mmu-let-7i	mmu-miR-194
mmu-miR-20a+mmu-miR-20b	mmu-miR-378
mmu-miR-28	mmu-miR-192
mmu-miR-106a+mmu-miR-17	
mmu-miR-532-5p	
mmu-miR-143	

Supplementary Table 3: CT values of polysome shift assay (PSA)

Treatment	High Molecular Weight Fraction 3				High Molecular Weight Fraction 4				Kidney PSA Score
	miR-17	Let-7d			miR-17	Let-7d			Average ddCT Fraction 3+4
	Ct Mean	Ct Mean	dCT	ddCT	Ct Mean	Ct Mean	dCT	ddCT	
PBS	24.613	22.832	1.781	0.640	25.404	24.220	1.184	-0.137	0.252
PBS	25.247	23.898	1.349	0.208	27.382	25.194	2.188	0.867	0.538
PBS	27.098	26.479	0.619	-0.522	25.233	23.393	1.840	0.519	-0.002
PBS	23.410	23.181	0.229	-0.912	25.116	24.855	0.260	-1.060	-0.986
PBS	25.474	24.601	0.873	-0.268	24.983	23.328	1.655	0.334	0.033
PBS	22.794	20.873	1.921	0.780	23.928	22.618	1.310	-0.011	0.385
PBS	23.936	23.103	0.833	-0.308	23.627	23.123	0.504	-0.816	-0.562
PBS	25.803	24.278	1.525	0.384	26.031	24.406	1.624	0.304	0.344
anti-miR-17 (0.3mg/kg)	25.169	23.098	2.071	0.930	26.489	24.627	1.862	0.541	0.736
anti-miR-17 (0.3mg/kg)	27.501	24.513	2.989	1.848	29.031	26.428	2.602	1.281	1.565
anti-miR-17 (0.3mg/kg)	26.641	23.342	3.299	2.158	28.544	25.404	3.140	1.819	1.988
anti-miR-17 (0.3mg/kg)	25.899	22.757	3.143	2.002	27.059	23.991	3.068	1.747	1.875
anti-miR-17 (0.3mg/kg)	26.012	23.630	2.383	1.242	26.383	23.793	2.590	1.270	1.256
anti-miR-17 (3mg/kg)	26.039	22.736	3.303	2.162	27.467	23.762	3.705	2.384	2.273
anti-miR-17 (3mg/kg)	27.601	23.845	3.756	2.615	28.783	25.172	3.611	2.290	2.452
anti-miR-17 (3mg/kg)	27.489	23.214	4.275	3.134	29.416	25.273	4.144	2.823	2.978
anti-miR-17 (3mg/kg)	26.003	23.578	2.426	1.285	26.320	24.203	2.118	0.797	1.041
anti-miR-17 (3mg/kg)	25.804	23.541	2.262	1.121	26.667	23.685	2.982	1.661	1.391
anti-miR-17 (30mg/kg)	27.129	22.542	4.587	3.446	28.124	24.369	3.755	2.435	2.940
anti-miR-17 (30mg/kg)	28.382	23.869	4.513	3.372	28.797	24.674	4.123	2.802	3.087
anti-miR-17 (30mg/kg)	28.627	24.316	4.310	3.169	30.112	25.228	4.884	3.563	3.366
anti-miR-17 (30mg/kg)	26.441	23.118	3.323	2.182	26.265	22.993	3.272	1.951	2.066
anti-miR-17 (30mg/kg)	26.224	23.451	2.773	1.632	26.517	22.278	4.239	2.919	2.275
Control (30mg/kg)	24.123	22.582	1.542	0.401	26.319	25.186	1.133	-0.188	0.106
Control (30mg/kg)	25.270	24.040	1.230	0.089	27.691	26.223	1.467	0.147	0.118
Control (30mg/kg)	26.845	27.007	-0.161	-1.302	25.646	23.635	2.011	0.690	-0.306
Control (30mg/kg)	23.612	23.821	-0.210	-1.351	26.293	24.911	1.382	0.062	-0.644
Control (30mg/kg)	25.547	23.762	1.785	0.644	25.120	23.398	1.723	0.402	0.523
Control (30mg/kg)	26.598	25.099	1.499	0.358	26.946	25.398	1.549	0.228	0.293
Control (30mg/kg)	23.957	21.751	2.205	1.064	25.466	23.964	1.502	0.181	0.623
Control (30mg/kg)	25.330	23.686	1.644	0.503	25.088	24.201	0.886	-0.434	0.035

Supplementary Table 4: Differential expression of miR-17~92 putative targets  
(TargetScan) in *PKD1<sup>F/RC</sup>* mutant kidneys (DKO vs SKO)

miR-17			miR-18a			miR-92a		
Confidence	Gene	Fold Change	Confidence	Gene	Fold Change	Confidence	Gene	Fold Change
High (predicted)	A1cf	2.858	High (predicted)	Csmp3	2.493	High (predicted)	4930402H24Rik	2.133
High (predicted)	Ahrr	2.241	High (predicted)	Fam166b	2.349	High (predicted)	Ahcy1	1.621
High (predicted)	Ak4	4.305	High (predicted)	Fgf1	1.576	High (predicted)	Aifm2	1.646
High (predicted)	Ankrd29	1.860	High (predicted)	Hlf	2.523	High (predicted)	Arpp19	1.623
High (predicted)	Arl4a	1.722	High (predicted)	Kcna1	4.451	High (predicted)	Astn1	5.544
High (predicted)	Bcl11b	1.880	High (predicted)	Rab9	1.880	High (predicted)	Atp6v1b2	1.730
High (predicted)	Bnc2	1.773	High (predicted)	Robo2	2.641	High (predicted)	Bcl11b	1.880
High (predicted)	Cd274	1.939	High (predicted)	Slc12a6	1.838	High (predicted)	Chchd10	4.790
High (predicted)	Cdc3711	2.079	High (predicted)	Slc1a2	2.509	High (predicted)	Cldn11	5.191
High (predicted)	Cers6	1.720	High (predicted)	Trib2	1.587	High (predicted)	Cpeb3	2.224
High (predicted)	Cpeb3	2.224	High (predicted)	Uqcrb	4.830	High (predicted)	Csrnp3	2.493
High (predicted)	Cript	1.887				High (predicted)	Dmx1	1.659
High (predicted)	Csrnp3	2.493				High (predicted)	Dock5	1.652
High (predicted)	Dab2	1.632				High (predicted)	Dpyd	2.542
High (predicted)	Dennd5b	1.729				High (predicted)	Dynlt3	1.952
High (predicted)	Dlgap1	2.753				Experimentally Observed	Enpp6	3.840
High (predicted)	Dnajb6	1.803	High (predicted)	1810011010Rik	2.072	High (predicted)	Eps8	1.848
High (predicted)	Dnajb9	1.772	High (predicted)	4930402H24Rik	2.133	High (predicted)	Gclm	1.722
High (predicted)	Ehd3	2.392	High (predicted)	Acsl1	2.076	High (predicted)	Gpr85	2.132
High (predicted)	Enpp5	1.722	High (predicted)	Acsl3	1.581	High (predicted)	Gria3	2.255
High (predicted)	Epha5	15.074	High (predicted)	Ak3	1.752	High (predicted)	Hand2	18.379
High (predicted)	Epha7	1.813	High (predicted)	Ak4	4.305	High (predicted)	Hoxc4	1.834
High (predicted)	Fam210a	1.866	High (predicted)	Arhgef26	1.834	High (predicted)	Idh1	1.854
High (predicted)	Foxj3	1.753	High (predicted)	Arpp19	1.623	High (predicted)	Kcna1	4.451
High (predicted)	Fyco1	2.544	High (predicted)	Atl2	1.636	High (predicted)	Kcnc4	41.962
High (predicted)	Gpr137b	2.815	High (predicted)	Atp6v1b2	1.730	High (predicted)	Kcnk3	4.448
High (predicted)	Hlf	2.523	High (predicted)	Bcat1	1.937	High (predicted)	Klf2	1.897
High (predicted)	Iltf1	2.010	High (predicted)	Bnc2	1.773	High (predicted)	Lamp2	1.852
High (predicted)	Itg8	1.916	High (predicted)	Coq10b	2.078	High (predicted)	Lurap11	2.021
High (predicted)	Lace1	2.014	High (predicted)	Cpeb3	2.224	High (predicted)	Mcoln2	1.806
High (predicted)	Ldlrad3	1.639	High (predicted)	Csmp3	2.493	High (predicted)	Mier3	1.865
High (predicted)	Map3k5	1.609	High (predicted)	Dbt	2.075	High (predicted)	Mpp1	2.099
High (predicted)	Mfap3l	1.788	High (predicted)	Dgkg	2.075	High (predicted)	Mrps25	1.925
High (predicted)	Mier3	1.865	High (predicted)	Dmx2	1.625	High (predicted)	Nox4	2.801
High (predicted)	Nabp1	2.648	High (predicted)	Dock5	1.652	High (predicted)	Pax9	36.555
High (predicted)	Napepld	2.144	High (predicted)	Eif4a2	2.102	High (predicted)	Pex3	1.824
High (predicted)	Nceh1	1.657	High (predicted)	Enpp5	1.722	High (predicted)	Ppcs	2.170
High (predicted)	Ndel1	1.556	High (predicted)	Fam46a	1.617	High (predicted)	Prkar2b	5.035
High (predicted)	Neurod2	17.606	High (predicted)	Fut9	2.323	High (predicted)	Ptprk	1.840
High (predicted)	Nhs	1.983	High (predicted)	Gabarapl1	1.653	High (predicted)	Rab3b	1.852
High (predicted)	Ntrk3	3.167	High (predicted)	Gpr137b	2.815	High (predicted)	Rbprms2	1.703
High (predicted)	Osr1	3.829	High (predicted)	Grsf1	1.664	High (predicted)	Robo2	2.641
Experimentally Observed	Pak7	3.392	High (predicted)	Hecw2	2.586	High (predicted)	Sar1b	1.811
High (predicted)	Pex5l	2.158	High (predicted)	Hlf	2.523	High (predicted)	Sgk1	2.417
High (predicted)	Plag1	2.157	High (predicted)	Ifi44l	4.538	High (predicted)	Slc24a4	9.952
High (predicted)	Pls1	1.671	High (predicted)	Kcnc4	41.962	High (predicted)	Slc25a36	1.751
High (predicted)	Plscr4	1.789	High (predicted)	Lrp2	3.489	High (predicted)	Sorcs3	2.934
High (predicted)	Polr3g	1.744	High (predicted)	Lrrtm2	5.657	High (predicted)	Sostdc1	2.657
High (predicted)	Ppara	1.982	High (predicted)	Magi2	1.756	High (predicted)	Syn2	1.844
Experimentally Observed	Pparg	2.836	High (predicted)	Mapk14	1.525	High (predicted)	Taf15	1.858
High (predicted)	Ppp1r3b	2.807	High (predicted)	Mfap3l	1.788	High (predicted)	Tef	1.733
High (predicted)	Ppp2ca	1.666	High (predicted)	Mts1	1.587	High (predicted)	Uqcrb	4.830
High (predicted)	Ppp6c	1.604	High (predicted)	Nanp	1.928			
High (predicted)	Ptger3	4.234	High (predicted)	Neurod1	10.098			
High (predicted)	Ptpro	2.043	High (predicted)	Nhs	1.983			
High (predicted)	Ranbp6	1.717	High (predicted)	Papd4	1.674			
High (predicted)	Sar1b	1.811	High (predicted)	Pax6	10.098			
Moderate (predicted)	Slc12a3	3.432	High (predicted)	Pax5l	2.158			
High (predicted)	Slc16a9	2.599	High (predicted)	Plag1	2.157			
High (predicted)	Slc1a2	2.509	High (predicted)	Ppara	1.982			
High (predicted)	Slc24a2	10.098	High (predicted)	Prkaa2	1.701			
High (predicted)	Slc24a4	9.952	High (predicted)	Rheb1	2.512			
High (predicted)	Slc25a36	1.751	High (predicted)	Ric3	1.916			
High (predicted)	Slc33a1	1.701	High (predicted)	Robo2	2.641			
High (predicted)	Slc4a4	2.772	High (predicted)	Rtn1	2.160			
High (predicted)	Slc5a3	2.283	High (predicted)	Sar1b	1.811			
High (predicted)	St8sia3	11.680	High (predicted)	Sec22a	2.199			
High (predicted)	Thrb	1.924	High (predicted)	Sgk1	2.417			
High (predicted)	Timm17a	1.679	High (predicted)	Sgms2	1.666			
High (predicted)	Tmem100	3.623	High (predicted)	Slc26a4	2.474			
High (predicted)	Tmem64	1.739	High (predicted)	Slc26a7	2.367			
High (predicted)	Tnfrsf21	1.729	High (predicted)	Slc8a1	2.450			
High (predicted)	Trabd2b	1.921	High (predicted)	St8sia3	11.680			
High (predicted)	Trps1	1.811	High (predicted)	Steap2	1.616			
High (predicted)	Ttc39c	1.772	High (predicted)	Sxbp4	1.636			
High (predicted)	Ube2q11	2.553	High (predicted)	Tmem64	1.739			
High (predicted)	Ucp3	5.959	High (predicted)	Tmem9b	1.661			
High (predicted)	Usp3	1.621	High (predicted)	Trpc3	1.861			
High (predicted)	Vldlr	1.852	High (predicted)	Trps1	1.811			
High (predicted)	Wac	1.670	High (predicted)	Txlnq	1.772			
High (predicted)	Wnk1	2.338	High (predicted)	Vstm2b	3.406			
			High (predicted)	Wipf3	1.948			
			High (predicted)	Wnk1	2.338			
			High (predicted)	Zhx3	1.634			

Supplementary Table 5: Differential Expression of miR-17~92 putative targets (TargetScan) in *Pkd2* mutant kidneys (*KO* vs. *DKO*)

miR-17			miR-18a			miR-19b			miR-92a		
Confidence	Gene	Fold Change	Confidence	Gene	Fold Change	Confidence	Gene	Fold Change	Confidence	Gene	Fold Change
High (predicted)	A1CF	1.397	Moderate (predicted)	A1CF	1.397	High (predicted)	ACADSB	1.208	High (predicted)	ASTN1	1.492
High (predicted)	AHRR	2.664	Moderate (predicted)	ABCD3	1.363	High (predicted)	ACSL1	1.376	High (predicted)	ATP2A2	1.150
High (predicted)	AK4	2.050	Moderate (predicted)	ACAD11	1.260	High (predicted)	AK3	1.124	High (predicted)	BCAT2	1.271
High (predicted)	ALDH1A3	2.354	Moderate (predicted)	ACO1	1.336	High (predicted)	AK4	2.050	High (predicted)	BCL11B	1.355
Experimentally Observed	APP	1.081	Moderate (predicted)	ADGRF1	1.836	High (predicted)	AKAP1	1.137	High (predicted)	CCNJL	1.166
High (predicted)	ATOH8	1.289	Moderate (predicted)	ADRA1A	1.409	High (predicted)	ATP2B2	1.518	High (predicted)	CEND1	1.791
High (predicted)	ATP2B2	1.518	Moderate (predicted)	ALDH5A1	1.273	High (predicted)	BCAT1	2.078	High (predicted)	CLDN11	4.186
High (predicted)	BCL11B	1.355	Moderate (predicted)	ANGPT2	1.427	High (predicted)	CAB39L	1.182	High (predicted)	CPEB3	1.433
High (predicted)	CAMTA2	1.124	Moderate (predicted)	AQP5	1.602	High (predicted)	CADM4	1.213	High (predicted)	DBT	1.248
High (predicted)	CDC37L1	1.121	Moderate (predicted)	CNDP1	1.577	High (predicted)	CISD3	1.257	High (predicted)	DPYD	1.379
High (predicted)	COL4A3	1.303	Moderate (predicted)	COL9A2	1.864	High (predicted)	CPEB3	1.433	High (predicted)	EPS8	1.168
High (predicted)	CPEB3	1.433	Moderate (predicted)	DLST	1.220	High (predicted)	CS	1.130	High (predicted)	FAM150B	1.802
Experimentally Observed	CRIM1	1.125	Moderate (predicted)	ECHS1	1.210	High (predicted)	CSPP1	1.120	High (predicted)	GPR85	1.266
High (predicted)	CYP26B1	2.150	Moderate (predicted)	EDA	1.258	High (predicted)	CXCL12	1.336	High (predicted)	GRIP2	1.367
High (predicted)	FBXO21	1.147	Moderate (predicted)	EYA4	1.726	High (predicted)	DBT	1.248	High (predicted)	HOXD10	1.202
High (predicted)	FGF12	1.414	Moderate (predicted)	FAM101A	1.188	High (predicted)	ELOVL5	1.147	High (predicted)	IDH1	1.291
High (predicted)	FOXO1	1.473	Moderate (predicted)	FAM195A	1.443	High (predicted)	EMC7	1.106	High (predicted)	IQGAP2	1.182
High (predicted)	FZD7	1.184	Moderate (predicted)	FBXO21	1.147	High (predicted)	GPRC5B	1.238	High (predicted)	ITPR1	1.203
High (predicted)	HLF	1.636	Moderate (predicted)	FBXO9	1.132	High (predicted)	HLF	1.636	High (predicted)	KCNK3	2.426
High (predicted)	ISM1	1.226	Moderate (predicted)	FN3KRP	1.184	High (predicted)	HOXA9	1.268	High (predicted)	KLHL14	1.195
High (predicted)	LACE1	1.205	Moderate (predicted)	FXN	1.233	High (predicted)	ICA1L	1.714	High (predicted)	MAP4K2	1.152
High (predicted)	LDLRAD3	1.221	Moderate (predicted)	GLUL	1.310	High (predicted)	MFAP3L	1.156	High (predicted)	MGLL	1.340
High (predicted)	LRP4	1.164	Moderate (predicted)	GPAM	1.284	High (predicted)	MINK1	1.107	High (predicted)	MRPS25	1.169
High (predicted)	MFAP3L	1.156	Moderate (predicted)	HADHA	1.143	High (predicted)	MLEC	1.138	High (predicted)	NEURL1B	1.225
High (predicted)	MGLL	1.340	Moderate (predicted)	HEXIM1	1.160	High (predicted)	MPRIIP	1.091	High (predicted)	NFYC	1.236
High (predicted)	MINK1	1.107	Moderate (predicted)	HNMT	1.226	High (predicted)	NEURL1B	1.225	High (predicted)	PDE4D	1.194
High (predicted)	NABP1	1.208	Moderate (predicted)	HNMT	1.226	High (predicted)	NUS1	1.242	High (predicted)	PLEKHA1	1.120
High (predicted)	NAPEPLD	1.339	Moderate (predicted)	HSPB1L1	1.346	High (predicted)	PCGF2	1.125	High (predicted)	PTPRD	1.293
High (predicted)	NEURL1B	1.225	Moderate (predicted)	HYAL1	1.197	High (predicted)	PFN2	1.170	High (predicted)	RBM47	1.155
High (predicted)	NKIRAS1	1.197	Moderate (predicted)	IDH3G	1.212	High (predicted)	PHACTR4	1.150	High (predicted)	RBPMS2	1.275
High (predicted)	NRIP3	1.688	Moderate (predicted)	IL15	1.435	High (predicted)	PPARA	1.372	High (predicted)	SGK1	1.702
High (predicted)	NTRK3	1.705	Moderate (predicted)	IL15	1.435	High (predicted)	PTPRD	1.293	High (predicted)	SIM2	1.329
High (predicted)	PFN2	1.170	Moderate (predicted)	KL	1.446	High (predicted)	RNF167	1.214	High (predicted)	SLC25A16	1.205
High (predicted)	PPARA	1.372	Moderate (predicted)	ME1	1.240	High (predicted)	RTN4RL1	1.210	High (predicted)	SNN	1.103
High (predicted)	PRRG1	1.179	Moderate (predicted)	MMAA	1.179	High (predicted)	SCN4B	1.551	High (predicted)	SOSTDC1	1.530
High (predicted)	PTGER3	1.514	Moderate (predicted)	NCOA4	1.184	High (predicted)	SGK1	1.702	High (predicted)	TBX3	1.397
High (predicted)	PTPRD	1.293	Moderate (predicted)	NDUFS1	1.253	High (predicted)	SLC26A7	1.454	High (predicted)	TEF	1.282
High (predicted)	RASL11B	1.223	Moderate (predicted)	NKIRAS1	1.197	High (predicted)	SLC35D1	1.233	High (predicted)	TMEM143	1.351
High (predicted)	RBM24	2.021	Moderate (predicted)	PAPSS2	1.334	High (predicted)	SV2A	1.557	High (predicted)	WNT5A	1.514
High (predicted)	RORC	1.624	Moderate (predicted)	PAPSS2	1.334	High (predicted)	THRB	1.338	High (predicted)	WRNIP1	1.115
High (predicted)	SALL1	1.205	Moderate (predicted)	PCGF2	1.125	High (predicted)	TLN2	1.214	High (predicted)	XPNPPEP3	1.155
High (predicted)	SLC16A9	1.454	Moderate (predicted)	PCSK6	2.042	High (predicted)	TMEM25	1.363	High (predicted)	ZBTB40	1.167
High (predicted)	SLC22A23	1.236	Moderate (predicted)	PDE1A	1.170	High (predicted)	TOM1L2	1.138	High (predicted)	ZFYVE21	1.289
High (predicted)	SLC29A2	1.285	Moderate (predicted)	PDE1A	1.170	High (predicted)	WIPF3	1.586			
High (predicted)	SLC2A4	1.673	Moderate (predicted)	PDE4DIP	1.135	High (predicted)	WNK1	1.176			
High (predicted)	SLC5A3	1.511	Moderate (predicted)	PFKM	1.187	High (predicted)	WRNIP1	1.115			
High (predicted)	SNX21	1.176	Moderate (predicted)	PRSS12	1.170						
High (predicted)	STC1	1.426	Moderate (predicted)	PRSS12	1.170						
High (predicted)	SYTL4	1.275	Moderate (predicted)	SCG3	3.627						
High (predicted)	TANC1	1.105	Moderate (predicted)	SH3BGR2L	1.110						
High (predicted)	TBX3	1.397	Moderate (predicted)	SLC16A10	1.281						
High (predicted)	THRB	1.338	Moderate (predicted)	SLC22A8	1.705						
High (predicted)	TMEM25	1.363	Moderate (predicted)	SLC34A1	1.608						
High (predicted)	TMTC1	1.311	Moderate (predicted)	SOWAHA	1.306						
High (predicted)	USP46	1.143	Moderate (predicted)	STARD8	1.240						
Experimentally Observed	VEGFA	1.278	Moderate (predicted)	STK32B	1.328						
High (predicted)	VLDLR	1.263	Moderate (predicted)	TCEA2	1.250						
High (predicted)	WASF3	1.235	Moderate (predicted)	TM2D2	1.134						
High (predicted)	WNK1	1.176	Moderate (predicted)	UQCRCQ	1.219						
High (predicted)	ZFP3	1.155									

Supplementary Table 6: Primers Used

Gene	Primer Sequence	
<i>Pkd1</i>	Forward	5'- TCTCGGAGCAGAATCAATGCC-3'
	Reverse	5'-CAGAGTTGAGGGACAGTGAGAT-3'
<i>Pkd2</i>	Forward	5'-GCGTGGTACCCTCTTGGCAGTT-3'
	Reverse	5'-CACGACAATCACAACATCC-3'
<i>Kim1</i>	Forward	5'-AGCAGTCGGTACAACCTTAAAGG-3'
	Reverse	5'-AGAGTTCTCTATCGTCAAGGACA-3'
<i>Ngal</i>	Forward	5'-GCAGGTGGTACGTTGTGGG-3'
	Reverse	5'-CTCTTGTAGCTCATAGATGGTGC-3'
<i>Acta2</i>	Forward	5'-GTCCCAGACATCAGGGAGTAA-3'
	Reverse	5'-TCGGATACTTCAGCGTCAGGA-3'
<i>Vim</i>	Forward	5'-CGTCCACACGCACCTACAG-3'
	Reverse	5'-GGGGGATGAGGAATAGAGGCT-3'
<i>Col4a6</i>	Forward	5'-GCACCCTCACAAGCCATT-3'
	Reverse	5'-CCAGGGGAGACTAGGGACTG-3'
<i>Col1a1</i>	Forward	5'-GCTCCTCTTAGGGGCCACT-3'
	Reverse	5'-CCACGTCTCACCATTGGGG-3'
<i>Ppara</i>	Forward	5'-CCTCAAAGTCTGAGCGGTCT-3'
	Reverse	5'-CTAACCTTGGGCCACACCT-3'
<i>Ppargc1a</i>	Forward	5'-GTGAACATTCAAAGCAGCAGAG-3'
	Reverse	5'-TTCTTCGTACAGCCATCAAAAA-3'
<i>Pparg</i>	Forward	5'-AGCTCCAAGAATACCAAAGTGC-3'
	Reverse	5'-GATGCTTTATCCCAGACTC-3'
<i>Sod2</i>	Forward	5'-CAGACCTGCCTTACGACTATGG-3'
	Reverse	5'-CTCGGTGGCGTTGAGATTGTT-3'
<i>Me1</i>	Forward	5'-GTCGTGCATCTCTCACAGAAG-3'
	Reverse	5'-TGAGGGCAGTTGGTTTTATCTTT-3'
<i>Oxct1</i>	Forward	5'-CATAAGGGGTGTGTCTGCTACT-3'
	Reverse	5'-GCAAGGTTGCACCATTAGGAAT-3'
<i>Pdk4</i>	Forward	5'-AGGGAGGTCGAGCTGTTCTC-3'
	Reverse	5'-GGAGTGTTCACTAAGCGGTCA-3'
<i>Cpt2</i>	Forward	5'-CAGCACAGCATCGTACCCA-3'
	Reverse	5'-TCCCAATGCCGTTCTCAAAAT-3'
<i>Slc27a2</i>	Forward	5'-CGAGACGAGACGCTCACCTA-3'
	Reverse	5'-ACGAATGTTGTAGTTGAGGCAC-3'
<i>Cd36</i>	Forward	5'-ATGGGCTGTGATCGGAACTG-3'
	Reverse	5'-TTTGCCACGTCATCTGGGTTT-3'
<i>Etfdh</i>	Forward	5'-GTGCGACTAACCCCTGTC-3'
	Reverse	5'-GGATGAACAGTGTAGTGAGTGG-3'
<i>Etfα</i>	Forward	5'-GCCTCATTGCTCCGTTTTCAG-3'
	Reverse	5'-GCTACTAAGCAGGACACTTCAC-3'
<i>Etfβ</i>	Forward	5'-CTGTCAAGAGGTCATCGACT-3'
	Reverse	5'-CACAGAAGGGGTTTCATGGAGT-3'
<i>Cmyc</i>	Forward	5'-CTGAGCCCCTAGTGCTGCATGA3'
	Reverse	5'-GGGGTTTGCCTCTTCTCCACAG-3'
<i>hPPARA</i>	Forward	5'-GGAGTTTATGAGGCCATATTCG-3'
	Reverse	5'-CAAAATCAAACCTGGGTTCCAT-3'

### Supplementary References:

1. Androsavich JR, *et al.* Polysome shift assay for direct measurement of miRNA inhibition by anti-miRNA drugs. *Nucleic Acids Res* **44**, e13 (2016).
2. Song X, *et al.* Systems Biology of Autosomal Dominant Polycystic Kidney Disease (ADPKD): Computational Identification of Gene Expression Pathways and Integrated Regulatory Networks. *Hum Mol Genet*, (2009).