

Supplemental Material

TABLE K Patient demographics

Gender	Age (days)	Cardiac Diagnoses
M/F: 18/12	Mean age: 14 days	
M	7 days	HLHS
M	5 days	HLHS
M	5 days	Pulmonary atresia
F	1 day	TAPVC
M	5 days	HLHS
F	24 days	Pulmonary atresia, VSD
M	4 days	COA
M	10 days	COA, Multiple VSDs
M	11 days	Hypoplastic aortic arch, muscular VSD
M	7 days	HLHS, Atrioventricular septal defect, ASD
F	97 days	COA
M	5 days	Pulmonary atresia
M	8 days	D-TGA, Medium ASD
M	4 days	TGA, VSD, ASD
F	4 days	COA, VSD
M	13 days	D-TGA
F	8 days	COA, VSD
F	5 days	Small aortic valve, hypoplastic arch, small LV
F	6 days	Pulmonary atresia, VSD
M	4 days	HLHS, PDA, ASD
F	6 days	D-TGA
F	10 days	D-TGA, VSD, ASD
F	4 days	D-TGA
M	6 days	Small aortic valve, hypoplastic arch, ASD, VSD
F	12 days	TOF, VSD
M	90 days	TOF
M	7 days	DILV, TGA, Severe PS,
M	18 days	COA
F	15 days	VSD, aortic stenosis, pulmonary hypertension
M	18 days	COA, Hypoplastic left ventricle

Abbreviations: HLHS=Hypoplastic left heart syndrome, D-TGA=D-transposition of great arteries, VSD=Ventricular septal defect, COA=coarctation of the aorta, TOF=Tetralogy of Fallot, DILV=Double inlet left ventricle, PS=Pulmonic stenosis, ASD=Atrial septal defect, TAPVC=Total anomalous pulmonary venous connection

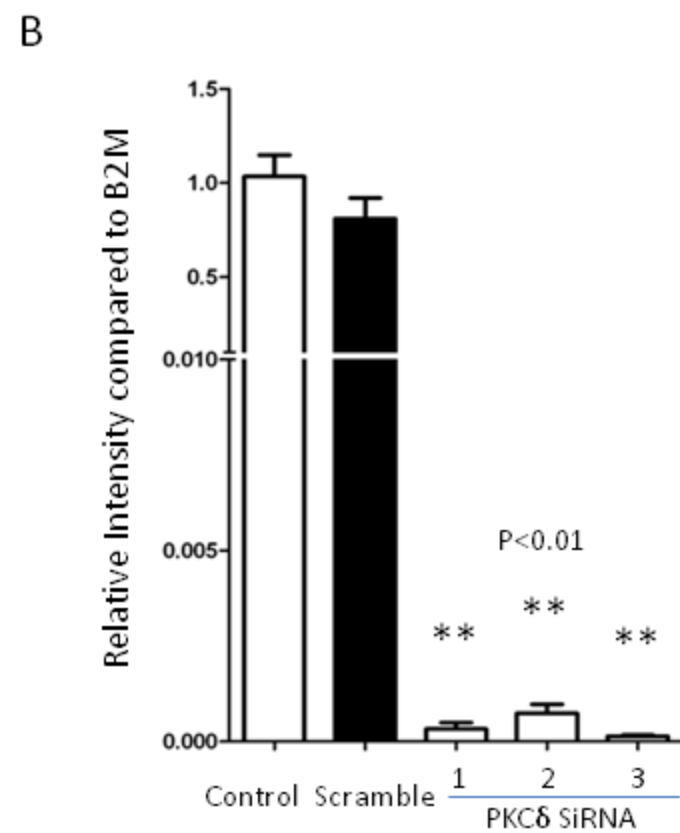
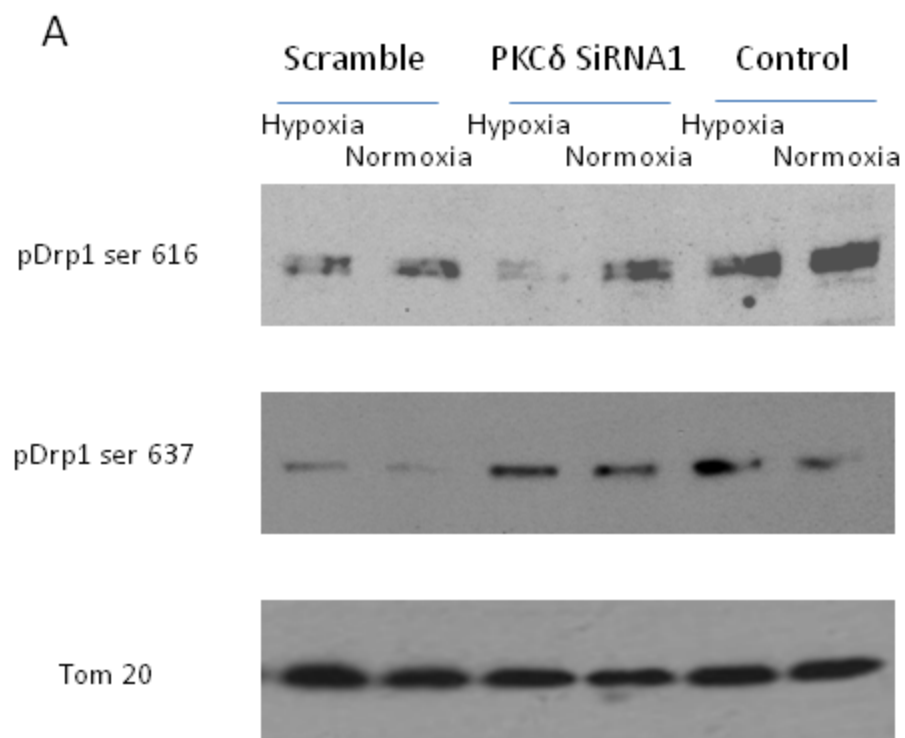
Supplemental Figure Legends

Supplemental Fig. I: **A:** Immunoblot of mitochondrial-enriched fraction of human DASMIC exposed to 20 minutes of normoxia shows that SiPKC δ had no effect on the Drp1 phosphorylation at Ser 616 nor did it alter dephosphorylation of Drp1 at Ser 637, n=3 DA culture plates. **B:** qRT-PCR demonstrates that SiRNA decreases PKC δ mRNA, n=6 DA plates.

Supplemental Fig. II: SiDrp1 decreases Drp1 mRNA (**A**) and protein level (**B**) in human DASMIC. n=3 DA cell culture each.

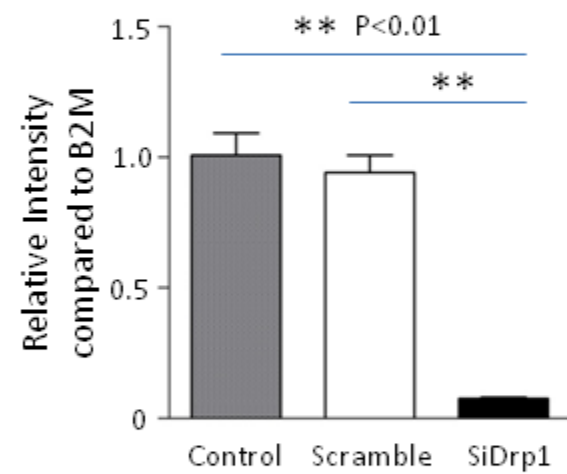
Supplemental Fig. III: Transfection of Ad-mitoCAT increases the catalase activity in human DASMIC, n=3 DA culture plates each.

Supplemental Figure I



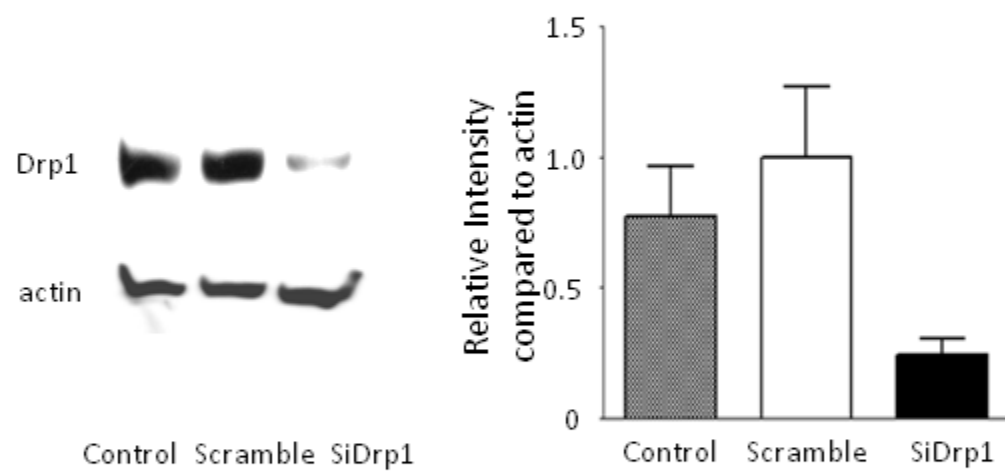
Supplemental Figure II

A



qRT-PCR

B



western blot

Supplemental Figure III

