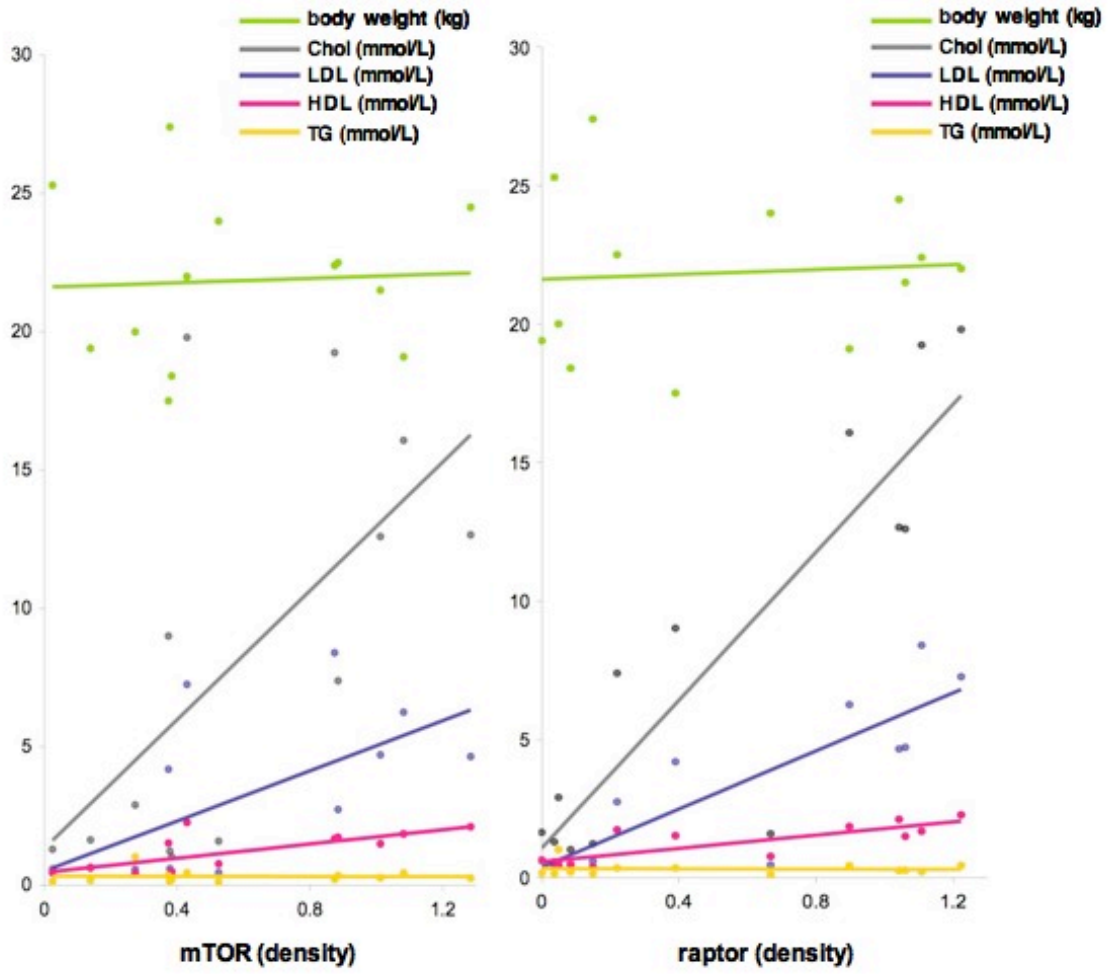
Supplemental Figure 1. Cardiac mTOR and raptor levels correlate with serum total cholesterol, LDL, and HDL, but not triglycerides or body weight. Correlation plots between mTOR (A) and raptor (B) levels and total cholesterol (Chol), low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglycerides (TG), and body weight. Pigs were fed a high-fat/high cholesterol diet or a normal diet. Levels of mTOR and raptor were measured from left ventricular lysates by immunoblotting and density was calculated relative to Ponceau S intensity. Best-fit trend lines were plotted using Microsoft Excel. For correlation (r) and p values, see Table 2.

Supplemental Figure 2. Additional immunofluorescence studies. (A) An mTOR blocking peptide eliminated the mTOR staining (yellow) seen by immunofluorescence in samples from hypercholesterolemic (HC) and normocholesterolemic (NC) pigs. The mTOR blocking peptide was incubated for 30 min at twice the volume of the anti-mTOR antibody before adding to the sections. Scale bar represents 40μm. (B) Staining for mTOR (yellow) and SERCA2 ATPase (red), a sarcoplasmic reticulum marker, in the HC myocardium. Both longitudinal and cross-sectional images are shown. mTOR does not localize to the SR. Slides were also co-stained with 4',6'-diamidino-2-phenylindole (DAPI, blue). Scale bar represents 20μm.

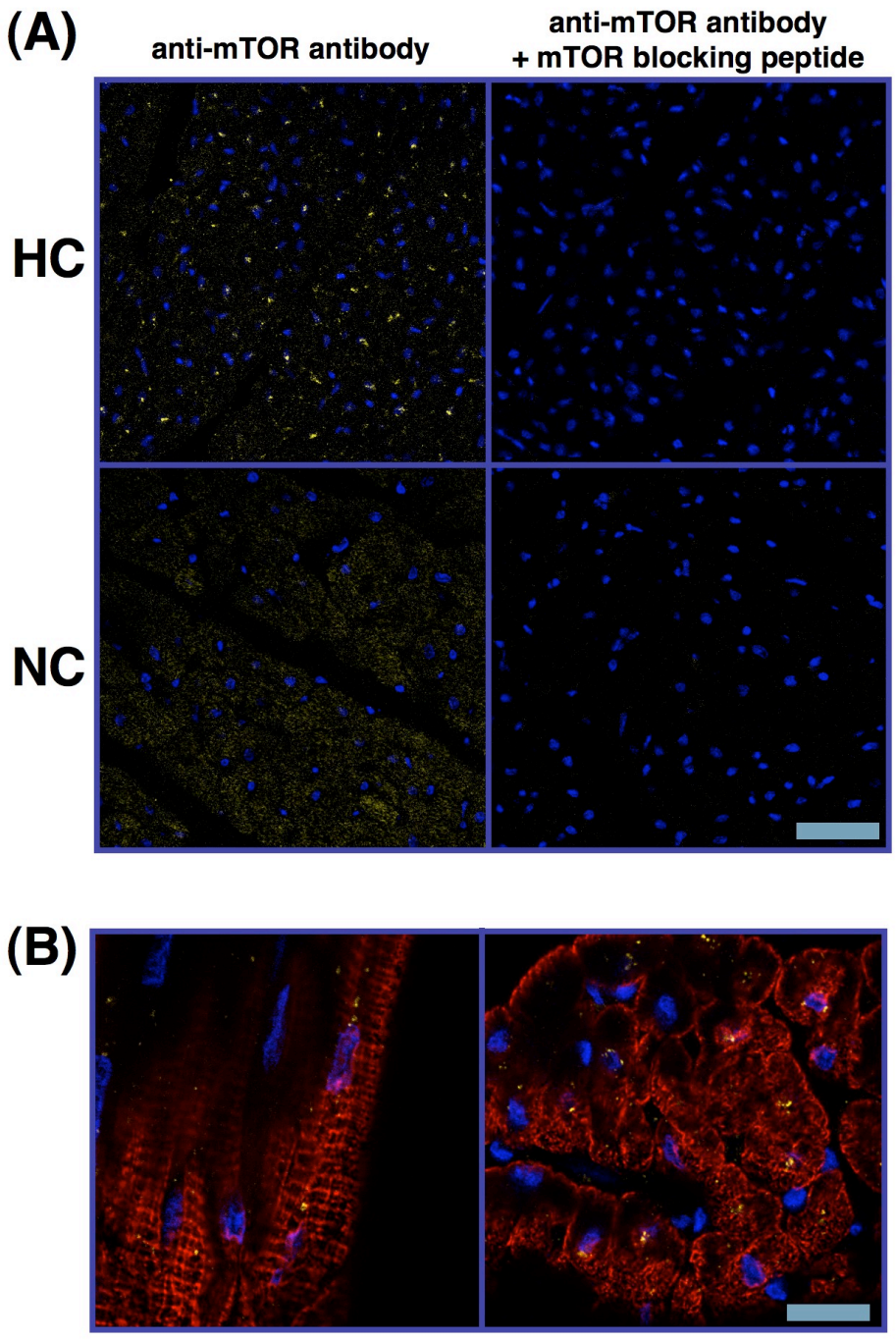
Supplemental Table 1. Correlation (r) between other myocardial targets measured in this study by Western blotting and serum total cholesterol (Chol), LDL, HDL, triglycerides (TG), and body weight. Pigs were fed a high-fat/high-cholesterol diet or normal diet. Corresponding p values are also shown.

Supplemental Figure 3. Additional immunoblotting data. (A) Levels of FOXO1 in the non-ischemic left ventricle are not different between hypercholesterolemic (HC) and normocholesterolemic (NC) pigs. (B) Hypercholesterolemia is associated with decreased expression of HIF-1α and increased phospho-S6K1 levels in the ischemic myocardium. The ischemic, non-necrotic area was identified by staining the left ventricle with triphenyl tetrazolium chloride dye (TTC) after the injection of monastryl blue dye into the coronary arteries after 1 hour ischemia and 2 hours reperfusion of the LAD. Shown are representative Western blots and quantification of the data. Bands were rearranged from the original gel for clarity of presentation. Density was calculated relative to Ponceau S staining. Data are expressed as mean ± SEM.

Supplemental Figure 1.



Supplemental Figure 2.



Supplemental Table 1.

	Chol (mmol/L)		LDL (mmol/L)		HDL (mmol/L)		TG (mmol/L)		Weight	
	r	p	r	p	r	p	r	p	r	p
p/t-Akt (Thr308)	0.20	0.50	0.23	0.46	0.53	0.07	0.28	0.35	-0.37	0.22
p/t-PRAS40	0.48	0.09	0.45	0.13	0.65	<0.05	0.21	0.49	0.35	0.25
p/t-mTOR	0.64	<0.05	0.57	<0.04	0.44	0.12	0.48	0.10	-0.23	0.45
p/t-AMPKα	-0.74	<0.01	-0.80	<0.01	-0.78	<0.01	-0.30	0.32	-0.02	0.94
Rheb	-0.57	<0.05	-0.56	<0.05	-0.43	0.15	-0.38	0.20	0.16	0.61
p/t-4EBP1	0.57	<0.05	0.57	<0.05	0.62	<0.05	0.15	0.61	-0.10	0.74
p/t-S6K1	0.40	0.18	0.49	0.08	0.46	0.11	-0.08	0.79	0.37	0.22
p/t-S6	0.48	0.09	0.42	0.16	0.41	0.17	0.32	0.28	-0.16	0.60
p/t-Akt (Ser473)	0.77	<0.01	0.64	<0.05	0.65	<0.05	0.45	0.12	-0.05	0.87
p/t-PKCα	0.34	0.25	0.51	0.08	0.54	0.06	0.17	0.57	-0.11	0.71
PKCα	0.66	<0.05	0.58	<0.05	0.57	<0.05	0.68	<0.05	-0.41	0.17
β-actin	0.45	0.13	0.47	0.10	0.35	0.24	0.53	0.06	-0.23	0.45
troponin I	0.36	0.23	0.55	0.14	0.43	0.14	0.46	0.11	-0.38	0.20
troponin T	0.54	0.06	0.55	<0.05	0.36	0.22	0.65	<0.05	-0.53	0.06
SERCA2 ATPase	0.75	<0.01	0.76	<0.01	0.72	<0.01	0.39	0.19	-0.40	0.18
LC3B-II/I	-0.10	0.73	-0.25	0.40	-0.40	0.18	-0.07	0.80	0.18	0.56

Supplemental Figure 3.