

Table S3. Effects of Gpx3 knockdown on mRNA levels in cardiomyocytes

	C	KD
Gpx3	1.013 ± 0.021	0.402 ± 0.030*
calcium channel		
ORAI1	1.076 ± 0.071	0.074 ± 0.002*
TRPC1	1.076 ± 0.071	0.230 ± 0.034*
TRPC3	1.076 ± 0.071	0.245 ± 0.024*
CACNA1S	1.076 ± 0.071	0.103 ± 0.025*
STIM1	1.076 ± 0.071	0.268 ± 0.077*
PMCA1	1.076 ± 0.071	0.119 ± 0.008*
NCX	1.076 ± 0.071	0.316 ± 0.032*
SERCA	1.076 ± 0.071	0.284 ± 0.020*
CALM	1.076 ± 0.071	0.152 ± 0.023*
TRP1	1.076 ± 0.071	2.831 ± 0.354*
TRP2	1.076 ± 0.071	0.428 ± 0.120*
TRP3	1.076 ± 0.071	1.200 ± 0.140
RyR1	1.076 ± 0.071	0.194 ± 0.003*
RyR2	1.076 ± 0.071	0.432 ± 0.125*
RyR3	1.076 ± 0.071	1.332 ± 0.029*
CASR	1.076 ± 0.071	0.614 ± 0.045*
endoplasmic reticulum stress		
XBP1	1.076 ± 0.071	1.495 ± 0.131*
LAMP	1.076 ± 0.071	2.341 ± 0.066*
GRP78	1.076 ± 0.071	4.607 ± 0.425*
GRP94	1.076 ± 0.071	2.017 ± 0.346*
CHOP	1.076 ± 0.071	1.299 ± 0.059*
ATF4	1.076 ± 0.071	2.197 ± 0.227*
ATF6	1.076 ± 0.071	1.311 ± 0.009*
inflammation		
COX-2	1.076 ± 0.071	1.903 ± 0.102*
HO-1	1.076 ± 0.071	0.861 ± 0.006*
iNOS	1.076 ± 0.071	4.977 ± 0.315*
NF-κB	1.076 ± 0.071	4.888 ± 0.502*
PTGES	1.076 ± 0.071	6.089 ± 0.473*
TNF-α	1.076 ± 0.071	3.323 ± 0.102*
heat shock proteins		
HSP27	1.076 ± 0.071	2.007 ± 0.132*
HSP40	1.076 ± 0.071	1.250 ± 0.133*
HSP60	1.076 ± 0.071	1.308 ± 0.050*
HSP70	1.076 ± 0.071	1.425 ± 0.130*
HSP90	1.076 ± 0.071	1.293 ± 0.045*
myocardial contraction		
MYL2	1.076 ± 0.071	0.211 ± 0.040*
MYL3	1.076 ± 0.071	0.193 ± 0.012*

TNNT2	1.076 ± 0.071	0.143 ± 0.104*
TNNC1	1.076 ± 0.071	0.161 ± 0.020*
MYH11	1.076 ± 0.071	0.979 ± 0.102*
MYH15	1.076 ± 0.071	0.734 ± 0.076*

Values are the mean ± SD (n = 3). * Indicates significant difference from the corresponding normal ($P < 0.05$). C indicates the control group, KD indicates the knockdown group in vitro.

Effects of Gpx3 knockdown on mRNA levels in chicken embryos

	6 days		8 days		10 days	
	Normal-6	siRNA-6	Normal-8	siRNA-8	Normal-10	siRNA-10
Gpx3	1.013±0.106	0.882±0.015*	0.972±0.036	0.770±0.017*	1.032±0.168	0.463±0.012*
calcium channel						
ORAI1	1.013±0.106	0.877±0.021	0.972±0.036	0.774±0.012*	1.032±0.168	0.657±0.001*
TRPC1	1.013±0.106	0.885±0.013	0.972±0.036	0.791±0.006*	1.032±0.168	0.674±0.016*
TRPC3	1.013±0.106	0.909±0.017	0.972±0.036	0.795±0.006*	1.032±0.168	0.653±0.007*
CACNA1S	1.013±0.106	0.892±0.012	0.972±0.036	0.777±0.019*	1.032±0.168	0.577±0.010*
STIM1	1.013±0.106	0.983±0.020	0.972±0.036	0.781±0.005*	1.032±0.168	0.581±0.005*
PMCA1	1.013±0.106	0.978±0.009	0.972±0.036	0.873±0.012*	1.032±0.168	0.756±0.010*
CASR	1.013±0.106	0.983±0.004	0.972±0.036	0.858±0.006*	1.032±0.168	0.598±0.022*
SERCA	1.013±0.106	0.985±0.006	0.972±0.036	0.865±0.004*	1.032±0.168	0.692±0.006*
CALM	1.013±0.106	0.982±0.005	0.972±0.036	0.872±0.007*	1.032±0.168	0.774±0.012*
TRP1	1.013±0.106	1.089±0.059	0.972±0.036	1.244±0.010*	1.032±0.168	1.441±0.011*
TRP2	1.013±0.106	0.975±0.016	0.972±0.036	0.866±0.018*	1.032±0.168	0.692±0.007*
TRP3	1.013±0.106	1.077±0.067	0.972±0.036	1.235±0.007*	1.032±0.168	1.282±0.025*
RyR1	1.013±0.106	0.973±0.016	0.972±0.036	0.881±0.015*	1.032±0.168	0.795±0.007*
RyR2	1.013±0.106	0.898±0.001	0.972±0.036	0.779±0.001*	1.032±0.168	0.692±0.006*
RyR3	1.013±0.106	0.959±0.044	0.972±0.036	1.236±0.006*	1.032±0.168	1.395±0.032*
NCX	1.013±0.106	0.952±0.052	0.972±0.036	0.862±0.005*	1.032±0.168	0.681±0.005*
endoplasmic reticulum stress						
XBPI	1.013±0.106	1.231±0.001*	0.972±0.036	1.340±0.015*	1.032±0.168	1.443±0.019*
LAMP	1.013±0.106	1.054±0.057	0.972±0.036	1.207±0.012*	1.032±0.168	1.236±0.006*
GRP78	1.013±0.106	1.046±0.058	0.972±0.036	1.347±0.015*	1.032±0.168	1.644±0.013*
GRP94	1.013±0.106	1.023±0.009	0.972±0.036	1.230±0.001*	1.032±0.168	1.532±0.012*
CHOP	1.013±0.106	1.019±0.011	0.972±0.036	1.273±0.040*	1.032±0.168	1.447±0.013*
ATF4	1.013±0.106	1.115±0.012	0.972±0.036	1.236±0.109*	1.032±0.168	1.318±0.007*
ATF6	1.013±0.106	1.008±0.085	0.972±0.036	1.211±0.020*	1.032±0.168	1.347±0.027*
inflammation						
PTGES	1.013±0.106	1.133±0.001	0.972±0.036	1.246±0.006*	1.032±0.168	1.436±0.008*
HO-1	1.013±0.106	0.976±0.001	0.972±0.036	0.829±0.028*	1.032±0.168	0.554±0.019*
iNOS	1.013±0.106	1.119±0.016	0.972±0.036	1.247±0.016*	1.032±0.168	1.342±0.017*
NF-κB	1.013±0.106	1.135±0.007	0.972±0.036	1.337±0.010*	1.032±0.168	2.198±0.056*
COX-2	1.013±0.106	1.101±0.017	0.972±0.036	1.190±0.050*	1.032±0.168	1.344±0.010*
TNF-α	1.013±0.106	1.252±0.061*	0.972±0.036	1.336±0.012*	1.032±0.168	1.781±0.010*
heat shock proteins						
HSP27	1.013±0.106	1.099±0.012	0.972±0.036	1.300±0.117*	1.032±0.168	1.544±0.017*
HSP40	1.013±0.106	1.088±0.006	0.972±0.036	1.151±0.050*	1.032±0.168	1.238±0.013*
HSP60	1.013±0.106	1.333±0.010*	0.972±0.036	1.442±0.013*	1.032±0.168	1.772±0.007*
HSP70	1.013±0.106	1.222±0.009*	0.972±0.036	1.337±0.021*	1.032±0.168	1.774±0.023*
HSP90	1.013±0.106	1.025±0.058	0.972±0.036	1.178±0.042*	1.032±0.168	1.375±0.058*

myocardial
contraction

MYL2	1.013±0.106	0.984±0.007	0.972±0.036	0.884±0.013*	1.032±0.168	0.566±0.017*
MYL3	1.013±0.106	0.972±0.007	0.972±0.036	0.769±0.031*	1.032±0.168	0.618±0.032*
TNNT2	1.013±0.106	0.978±0.010	0.972±0.036	0.871±0.024*	1.032±0.168	0.768±0.019*
TNNC1	1.013±0.106	0.889±0.010	0.972±0.036	0.765±0.004*	1.032±0.168	0.708±0.052*
MYH11	1.013±0.106	1.010±0.011	0.972±0.036	0.886±0.006*	1.032±0.168	0.803±0.007*
MYH15	1.013±0.106	0.903±0.005	0.972±0.036	0.867±0.010	1.032±0.168	0.777±0.018*

Values are the mean ± SD (n = 15). * Indicates significant difference from the corresponding normal ($P < 0.05$). Normal-6 indicates the normal group at 6 days, Normal-8 indicates the normal group at 8 days, Normal-10 indicates the normal group at 10 days; siRNA-6 indicates the knockdown group at 6 days, siRNA-8 indicates the knockdown group at 8 days, siRNA-10 indicates the knockdown group at 10 days in vivo.