

Supplemental Table 1. Statistical analysis between WT and *Mef2d* mutant mice

Echocardiogram		Fetal gene expression	
Parameters	p values	Genes	p values
LVIDd ^A	<0.7 ^B	<i>ANP</i> ^C	<1.0 ^D
LVIDs	<0.005	<i>BNP</i>	<0.08
FS	<0.005	<i>Myh6</i>	<1.0
HR	<0.3	<i>Myh7</i>	<0.4
AWd	<0.6	<i>Acta1</i>	<0.09
PWd	<0.2	<i>Ctgf</i>	<0.5
		<i>Colla2</i>	<0.9
		<i>Col3a1</i>	<0.5
		<i>Mef2a</i>	<0.7

^ALVIDd, left ventricular end-diastolic diameter; LVIDs, left ventricular end-systolic diameter; FS, fractional shortening; HR, heart rate; AWd, anterior wall thickness in diastole; PWd, posterior wall thickness in diastole.

^BThese p values relate to Table 1 and Figure 3.

^C*ANP*, atrial natriuretic peptide; *BNP*, brain natriuretic peptide; *Myh6*, myosin, heavy polypeptide 6, cardiac muscle, alpha; *Myh7*, myosin, heavy polypeptide 7, cardiac muscle, beta; *Acta1*, actin, alpha 1, skeletal muscle; *Ctgf*, connective tissue growth factor; *Colla2*, procollagen, type I, alpha 2; *Col3a1*, procollagen, type III, alpha 1; *Mef2a*, myocyte enhancer factor-2a.

^DThese p values relate to Figure 4.

Supplemental Methods

Tissue culture and transfection

COS-7 cells were grown in Dulbecco's Modified Eagle's Medium supplemented with 10% fetal bovine serum. Fugene 6 (Roche) was used for transient transfection assay according to the manufacturer's instructions. A luciferase reporter plasmid containing three copies of a high-affinity MEF2 binding site and a mammalian expression construct of MEF2A have been previously described (39). A coding sequence of MEF2D Δ (18-86) was generated by PCR and ligated into pcDNA 3.1 (Invitrogen) to generate the expression construct. Plasmids were co-transfected with 10 ng of a CMV- β -galactosidase reporter plasmid to control for transfection efficiency.

Supplemental Figure

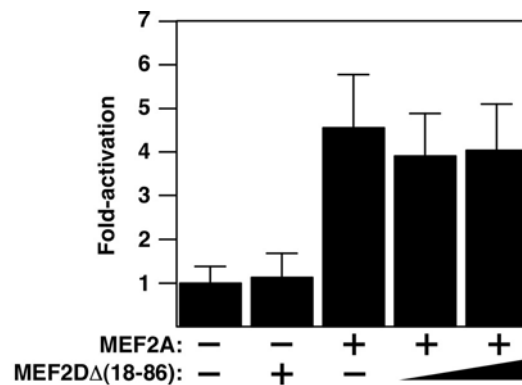


Figure S1. COS-7 cells were cotransfected with a MEF2-dependent luciferase reporter and expression vectors of MEF2A and MEF2D Δ (18-86) to demonstrate that the presence of mutant MEF2D protein has a minimal effect on MEF2 activity. Error bars indicate one standard deviation.