SUPPLEMENTAL INFORMATION INVENTORY

1. Supplemental Table:

   Table S1: Plasma Analysis of LT-treated rats
   - Provides temporally-significant diagnostic data for blood plasma electrolytes, total protein, and markers of renal and liver damage

2. Supplemental Figures and Figure Legends:

   Figure S1: Echocardiographic imaging associated with the temporal effects of LT on cardiac function and extension of main Figure 1 (B and C)

   Figure S2: *In vitro* LT time-course and B56α1 over-expression studies in cardiac myocytes; extension of main Figure 3

   Figure S3: CA-MEK7 expression effects on JNK, Akt and PP2A-B56α protein and phosphorylation; extension of main Figure 4

1. Supplemental Table

	Controls	2 h LT	4 h LT	8 h LT	24 h LT
Albumin (g/dL)	3.56 ± 0.1	3.12 ± 0.1	2.97 ± 0.2*	3.30 ± 0.1	3.34 ± 0.2
Globulin (g/dL)	2.03 ± 0.2	1.72 ± 0.07	1.53 ± 0.1*	1.84 ± 0.1	1.74 ± 0.3
Total Protein (g/dL)	5.6 ± 0.26	4.7 ± 0.10	4.6 ± 0.10†	5.1 ± 0.2	5.2 ± 0.15
Total Bilirubin (mg/dL)	0.24 ± 0.07	0.3 ± 0.02	0.25 ± 0.02	0.33 ± 0.03	0.34 ± 0.05*
Blood Urea Nitrogen (mg/dL)	16.9 ± 1.6	16.8 ± 1.6	16.5 ± 1.0	17.7 ± 1.4	16.0 ± 7.6
Creatinine (mg/dL)	0.44 ± 0.07	0.47 ± 0.06	0.38 ± 0.03	0.46 ± 0.04	0.49 ± 0.1
Glucose (mg/dL)	320 ± 44	363 ± 21	298 ± 24	334 ± 16	344 ± 23
Amylase (U/L)	623 ± 63	603 ± 23	578 ± 28	667 ± 24	657 ± 92
Alanine Aminotransferase (U/L)	55.7 ± 10	62.2 ± 3	61.4 ± 10	44.4 ± 3	52.9 ± 8
Alkaline Phosphatase (U/L)	271 ± 64	273 ± 23	229 ± 18§	236 ± 21	351 ± 135*
Sodium (mmol/L)	151 ± 5	146 ± 1*	144 ± 6‡	152 ± 1	149 ± 1
Potassium (mmol/L)	5.94 ± 0.4	6.15 ± 0.2	6.05 ± 0.3	6.00 ± 0.2	5.55 ± 0.6
Calcium (mg/dL)	4.29 ± 0.3	4.35 ± 0.06	4.70 ± 0.02*	4.07 ±0.07¥	4.00 ± 0.0¥
Phosphorus (mg/dL)	8.58 ± 0.9	9.27 ± 0.3	9.33 ± 0.6	9.87 ± 0.5	9.39 ± 1

Table S1
Plasma analysis of LT-treated rats. Data are presented as mean ± SEM. (*P<0.05 versus controls; †P<0.01 versus controls; ‡P<0.01 versus 8 h LT; §P<0.01 versus 24 h LT; ¥P<0.001 versus 4 h LT.)

2. Supplemental Figures and Figure Legends

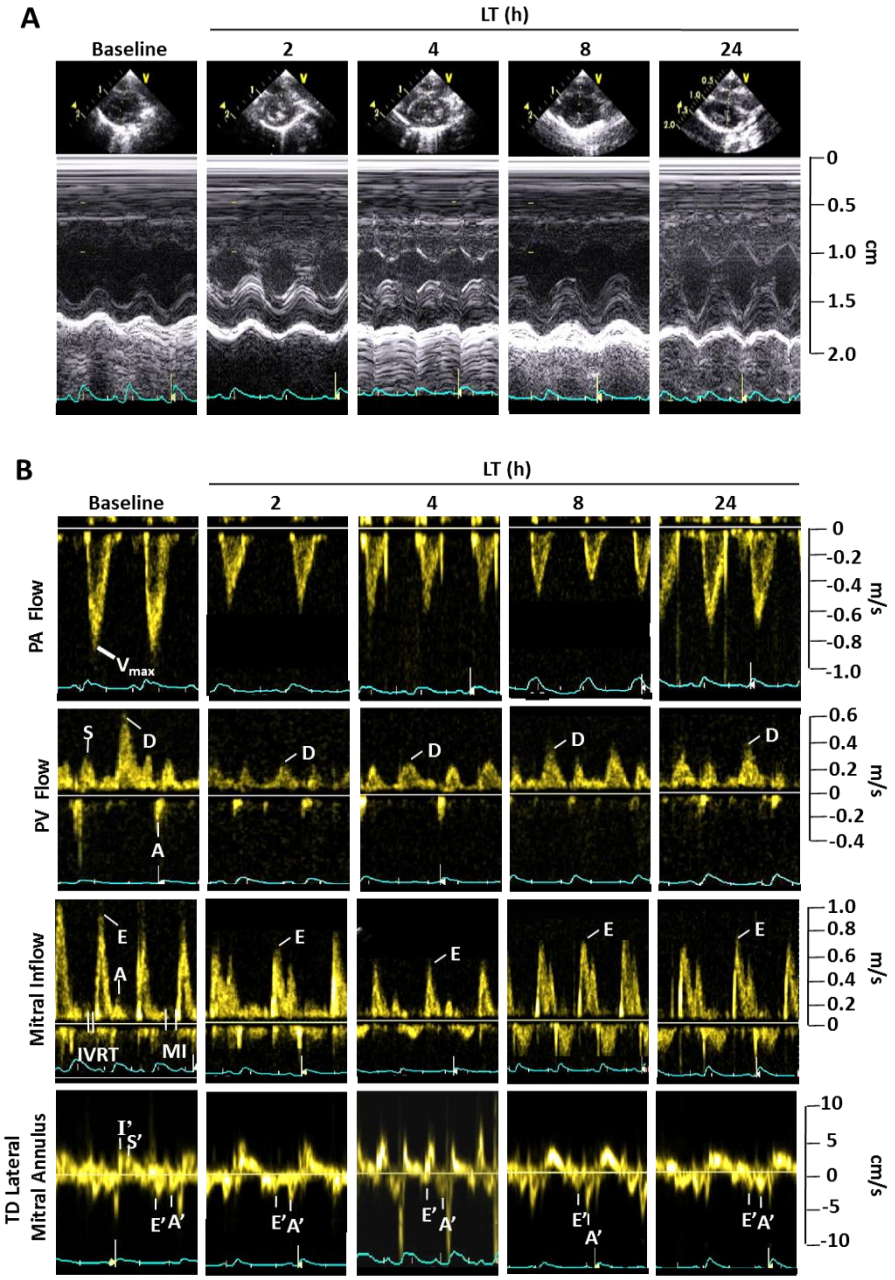

Figure S1. **A,** Representative 2-D echocardiograms of baseline and LT-treated rats. **B,** Representative pulsed-wave images of blood flow through the pulmonary artery (PA), pulmonary vein (PV), and across the mitral valve. Tissue Doppler of the lateral mitral annulus is shown at bottom. For pulsed-wave echocardiograms: S, systolic; D, diastolic; A, atrial contraction; E, early diastolic filling, MI, mitral interval; IVRT, isovolumic relaxation time. For tissue Doppler: I', isovolumic contraction; S', systolic wave; E', early diastolic filling wave; A', late diastolic wave.

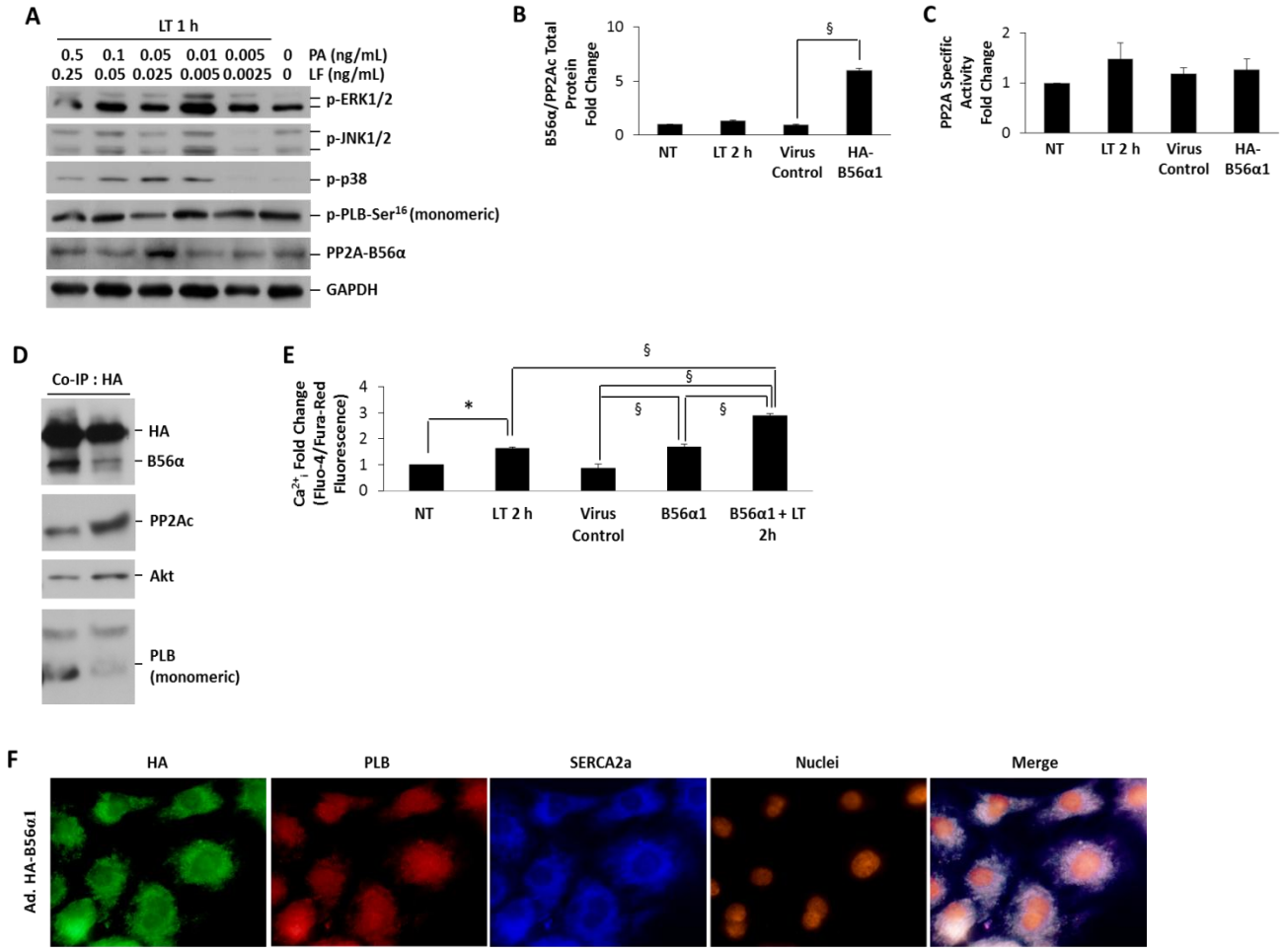

Figure S2. **A**, Expression of B56α normalized to PP2Ac total protein. **B**, PP2A specific activity represented as PP2A enzymatic activity/PP2Ac total protein. **C**, Co-immunoprecipitation of B56α, PP2Ac, Akt and PLB with anti-HA antibody. **D**, Ratiometric Ca^{2+}_i determination by Fluo-4/Fura-Red fluorescence, normalized to control (dye only). **E**, Immunofluorescence of cardiac myocytes infected with HA-B56α-expressing adenovirus. Green indicates HA-B56α (anti-HA); red indicates phospholamban (PLB); blue indicates SERCA2a; orange indicates nuclei. Original magnification: 40X, oil.

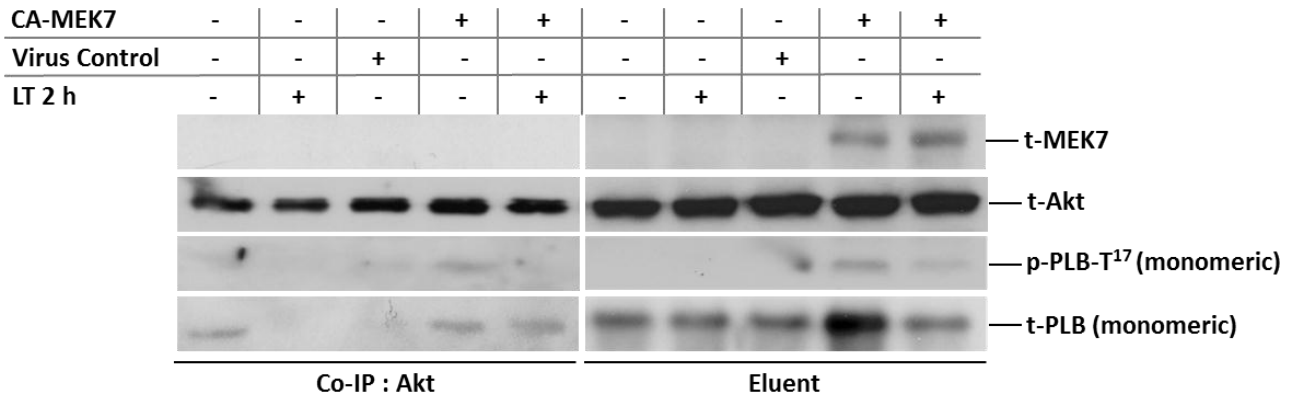

Figure S3. Co-immunoprecipitation of p-PLB-T^{17} and t-Akt from NRVM lysates with anti-Akt (pan) antibody after expression of CA-MEK7 adenovirus. Co-immunoprecipitated protein is shown at **left**, and the input lysate (eluent) is shown at **right**. MEK7 protein is found in the lysate (eluent); CA-MEK7-induced p-PLB-T^{17}/Akt interactions are revealed as co-immunoprecipitated (Co-IP) by Akt. N = 4.