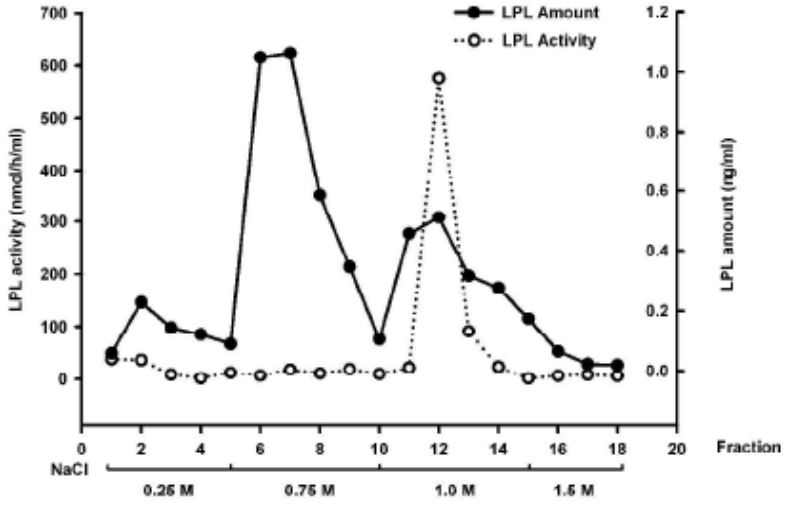
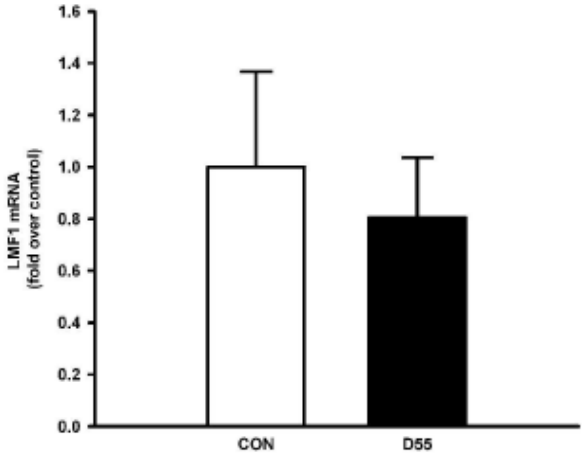
SUPPLEMENTARY DATA

Supplementary Figure 1. Monomeric and dimeric LPL are present in the heart. Whole heart homogenate was loaded onto a heparin-sepharose column followed by washing with increasing concentrations of NaCl (0.25, 0.75, 1.0, and 1.5 M, lower bar) at a flow rate of 0.2 ml/min. Both LPL amount (right axis) and activity (left axis) in each fraction were determined using ELISA and in vitro hydrolysis of a sonicated [^{3}H]triolein substrate emulsion, respectively.



Supplementary Figure 2. LMF1 mRNA expression in heart does not change following diabetes. LMF1 mRNA level from CON and D55 hearts was analyzed by real-time quantitative PCR and normalized to 18S-ribosomal RNA. Results were plotted as fold over control of mean±SE of 3 animals in each group.



SUPPLEMENTARY DATA

Supplementary Figure 3. Inhibitory effect of Angptl-4 on LPL at the vascular lumen and cardiomyocytes in control animals. Hearts from control animals were perfused with or without 1 ng/ml purified human Angptl-4 for 1 h. After Angptl-4 perfusion, hearts were subsequently perfused with 5 U/ml heparin to release LPL activity remaining at the vascular lumen. LPL activity in the perfusate is expressed as area under curve over the 3 min perfusion (A). Results are the mean±SE of 3 animals in each group. *Significantly different from control, $P<0.05$. Isolated cardiomyocytes from control animals were incubated with 1 ng/ml, 0.1 µg/ml, or 1 µg/ml Angptl-4 for the indicated times, incubation media collected, and LPL activity measured (B). In the 12 h groups, at the end of treatment, cells were washed with normal media, LPL on the cell surface released by incubation with media containing 8 U/ml heparin for 1 min, and LPL activity on the surface determined (C). Results are the mean±SE of 3 repeated experiments using different animals. *Significantly different from control, $P<0.05$. **Significantly different from control, $P<0.01$. In a separate experiment, isolated cardiomyocytes were plated on 60 × 15 mm tissue culture dishes and treated with or without 1 µg/ml angptl-4 for 12 h. Cells were washed with cold PBS and harvested. Cell lysates were loaded onto a heparin-sepharose column, and dimeric LPL visualized in the 1.0 M fractions by Western blot following TCA precipitation (C, inset). AUC: area under curve.

SUPPLEMENTARY DATA