Figure S1 related to Figure 6 Adrx expression in human adipocytes parallels that in mouse fat cells and affects adiponectin secretion. The mRNA distribution of Adrx A. and adiponectin B. in abdominal subcutaneous adipose tissue (AT), and isolated fat cells (FC) and stromal-vascular fractions (SVF) obtained after collagenase digestion is shown in comparison to the other tissues lindicated (n=3). C. Adrx mRNA and protein shows a marked increase in expression during the differentiation of human preadipocytes. The data are expressed as % of one of the 4 cultures that was set to an arbitrary value of 1. D. (I.-IV.) shows that knockdown of Adrx mRNA and protein did not decrease adiponectin mRNA, but markedly decreased the secretion of (HMW) and lower molecular weight forms (MMW and LMW) into the medium. The data in all panels are representative of 3 or more independent experiments. The data in panel D were reproduced in cells from 2 individuals.
Figure S2 related to Figure 5 mRNA Expression of adipocyte ER stress and inflammation markers in the Adxr null and wild type mice. A. ER stress markers (HERP: homocysteine-induced ER protein; CHOP: CAAT/enhancer binding protein (C/EBP) homologous protein; EDEM1: ER degradation enhancer, mannosidase alpha-like 1; WARS: tryptophanyl tRNA synthetase; P58IPK: p58 inhibitor of interferon-induced double-stranded RNA-activated protein kinase) and B. Inflammatory markers were measured by RT-qPCR from 8-week old adrx null and wild types mice adipose tissue.
Figure S3 related to Figure 5 Metabolic characteristics of 7 month old Adrx null mice. Body weight growth (A), Body composition lean (B) and fat (C) mass, fasting serum glucose (D) and insulin (E) and glucose tolerance (F) were measured from 7-month old adrx null and wild type mice.
Figure S4 related to Figure 5 Adiporedoxin expression is reduced in epididymal adipose tissue from obese, high fat fed (HFD) male mice. A. Male (6/condition) and female B (5/condition) were fed a "chow" (LFD) diet or a HFD for 14 weeks and the expression of the indicated proteins in white adipose tissue lysates was determined by immunoblotting following SDS-PAGE. B. The gels were scanned and quantitatively analyzed as in other figures (mean ±S.E.M., p< 0.05, n = 6). C. Serum HMW adiponectin was measured in the mice from A and plotted as the ratio of HMW/total adiponectin normalized to adipocyte Adrx/tubulin.