



Supplemental Figure 1. Fish oil exerts hypolipidemic effects in lean LDLR^{-/-} mice and insulin sensitizing effects in ob/ob;LDLR^{-/-} mice

In plasma, fish oil caused a profound reduction in dyslipidemia in lean LDLR^{-/-} mice that was absent in ob/ob;LDLR^{-/-} mice. On the other hand, insulin sensitivity was not altered in lean LDLR^{-/-} mice whereas a remarkable increase in insulin sensitivity was observed in ob/ob;LDLR^{-/-} mice. Interestingly, fish oil increased plasma concentrations of adiponectin in both groups. In liver, fish oil reduced hepatic steatosis in both mouse models. Conversely, hepatic phospho AMPK was increased in lean LDLR^{-/-} mice but reduced in ob/ob;LDLR^{-/-} mice by fish oil feeding. Thus, fish oil has potent plasma lipid lowering effects in lean mice, exerts insulin sensitizing effects in obese mice, and reduces hepatic steatosis in both lean and obese mice. The thickness of the arrows is indicative of the extent to which a particular metabolic variable is altered relative to its olive oil control group.