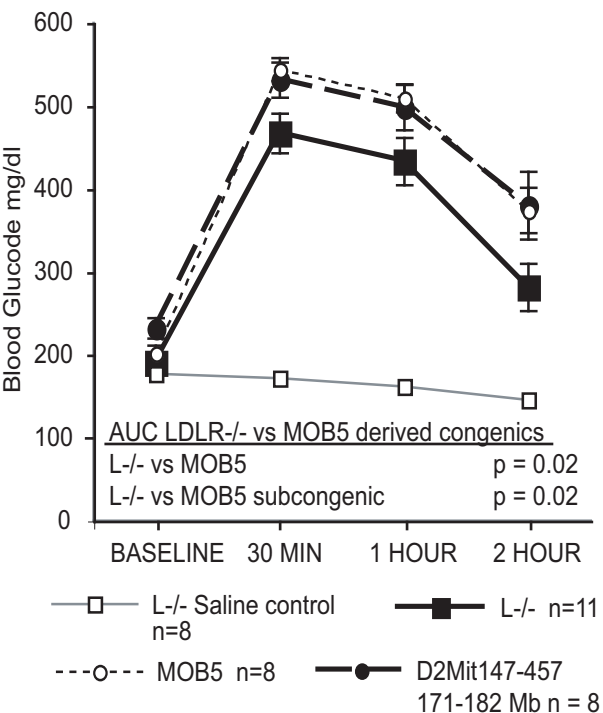


Figure 5

A. IPGTT LDLR^{-/-} vs MOB5 derived congenic Western Diet



MOB5 congenics were backcrossed to B6 mice to create recombinants that localized CAST alleles from within the MOB5 unique interval from 172-182 Mb (B6.CAST-D2Mit147-D2Mit457) to create a MOB5 sub-congenic strain. Recombinants possessing CAST alleles within this genomic interval were intercrossed until this interval was homozygous for CAST alleles.

MOB5 sub-congenics began Western diet feeding at 8 weeks. At nineteen weeks of age after 10-11 weeks of Western diet feeding MOB5 subcongenics were compared to twenty seven week old parental MOB5 congenics and LDLR^{-/-} controls fed a Western diet 16-18 weeks.

The MOB5 sub-congenics demonstrated significantly decreased glucose tolerance (AUC = 53,200) compared to LDLR^{-/-} (AUC= 44,700) similar to that of the parental MOB5congenics (AUC = 53461). No significant differences in insulin sensitivity were observed between the MOB5 subcongenics (ISI = -3.1)and LDLR^{-/-} controls (ISI = -3.4). However, given the decreased insulin sensitivity of the LDLR^{-/-} the MOB5 sub-congenic were insulin resistant eventhough they were considerably younger than controls.

B. ISI LDLR^{-/-} vs MOB5 derived Congenics

