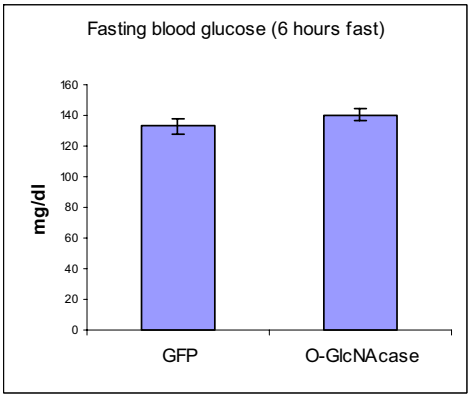
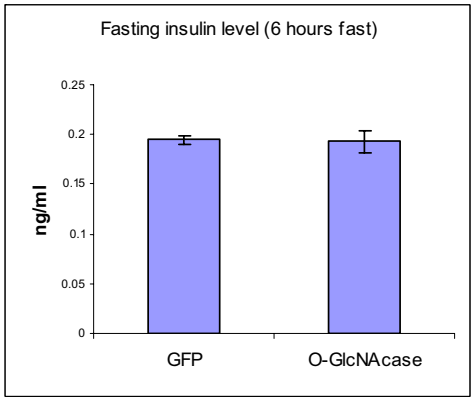
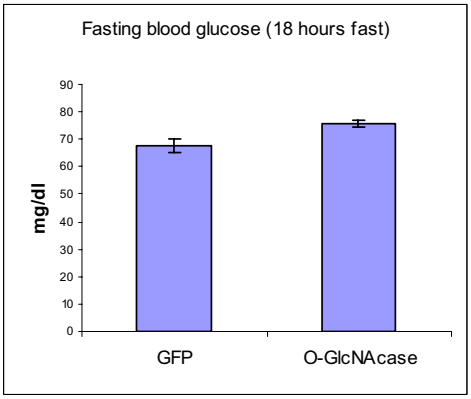
Supplemental figure 1

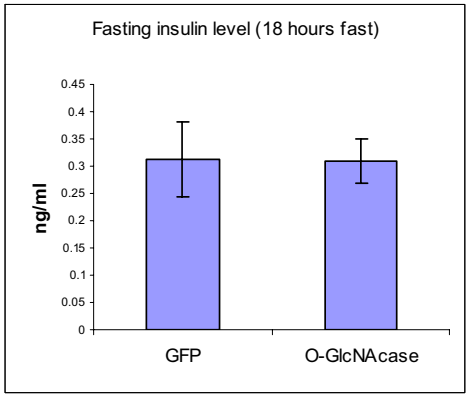
(A)





(B)

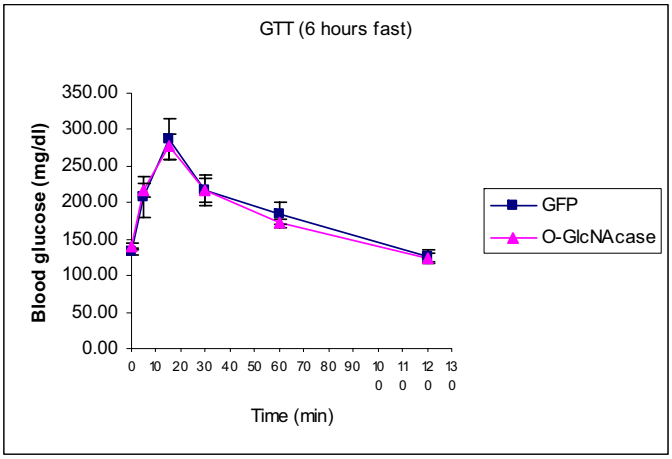




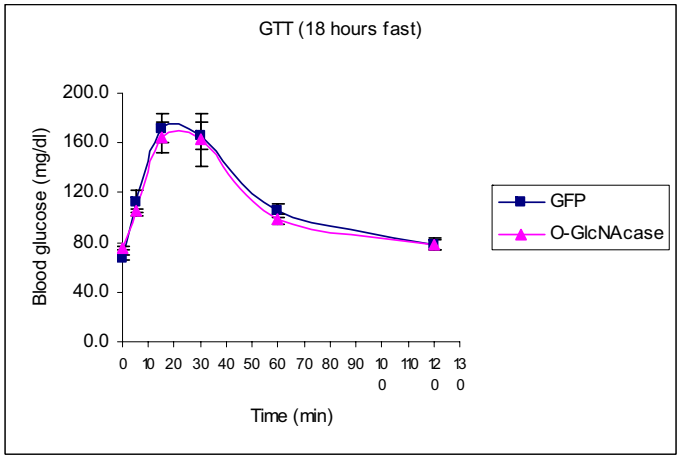
Fasting glucose and insulin level of C57BL/6J overexpressing either GFP or O-GlcNAcase. Experimental animals were fasted for 6 h (n=3-4/group) (A) or 18 h (n=3-4/group) (B). Tail vein blood was sampled for glucose determination with a glucometer (Bayer, Pittsburgh, PA) or for insulin measurement by using the Sensitive Rat Insulin RIA kit (Linco Research, St. Charles, MO)

Supplemental figure 2

(A)



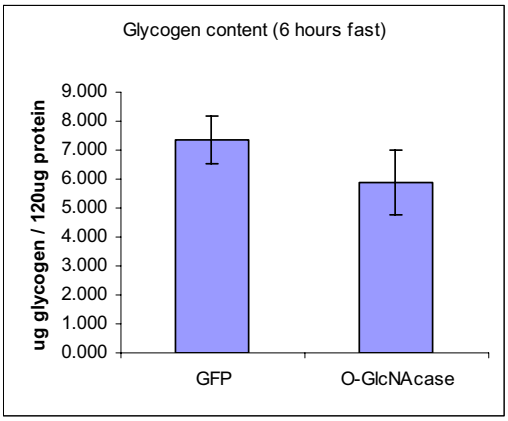
(B)



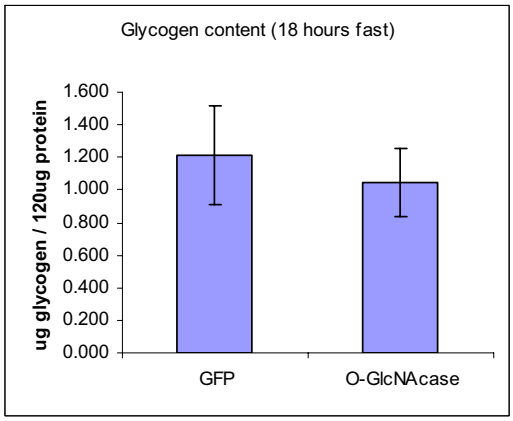
Glucose tolerance testing of C57BL/6J overexpressing either GFP or O-GlcNAcase.
O-GlcNAcase protein was overexpressed in the liver of C57BL/6J mice through tail vein injection of adenovirus encoding the protein. Adenovirus encoding GFP was used as control. Experimental animals were fasted for 6 h (n=3-4/group) (A) or 18 h (n=3-4/group) (B), after which glucose (1 g/kg body weight) was injected i.p. At the indicated times, tail vein blood was sampled for glucose determination with a glucometer.

Supplemental figure 3

(A)

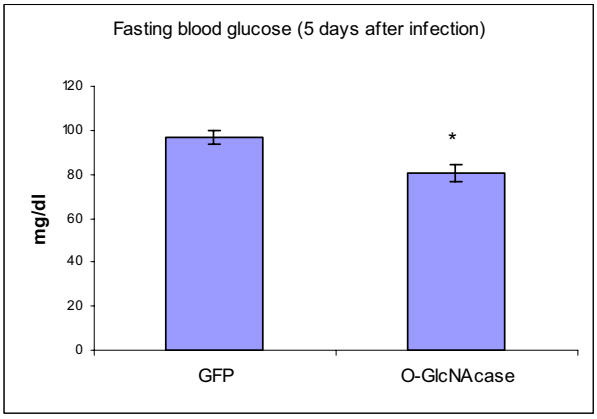


(B)



Glycogen content of C57BL/6J overexpressing either GFP or O-GlcNAcase. Mice were fasted for 6 h (n=5/group) (A) or 18 h (n=5-6/group) (B) prior to sacrifice. Livers were homogenized in lysis buffer and glycogen levels were assayed by incubating the samples with amyloglucosidase (Roche Applied Science, Indianapolis, IN) at 50 °C for 30 min in 0.1 M sodium acetate, pH 6.0. Aliquot was assayed for glucose at *A*450 nm using a glucose assay kit from Sigma–Aldrich (St. Louis, MI) and normalized against protein using the Bradford Protein Assay method (Bio-Rad).

Supplemental figure 4



Fasting glucose of C57BL/6J overexpressing either GFP or O-GlcNAcase. Experimental animals were fasted for 18 h (n=3-4/group). Tail vein blood was sampled for glucose determination with a glucometer (Bayer, Pittsburgh, PA).