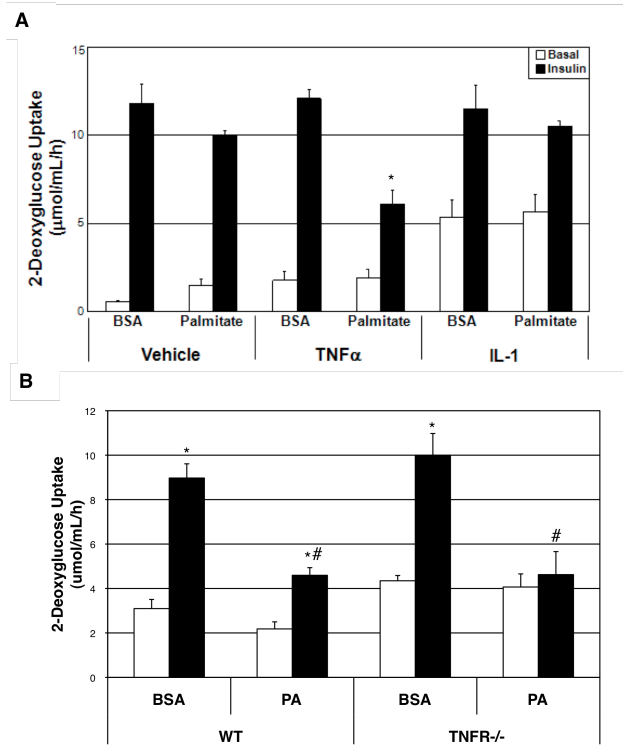
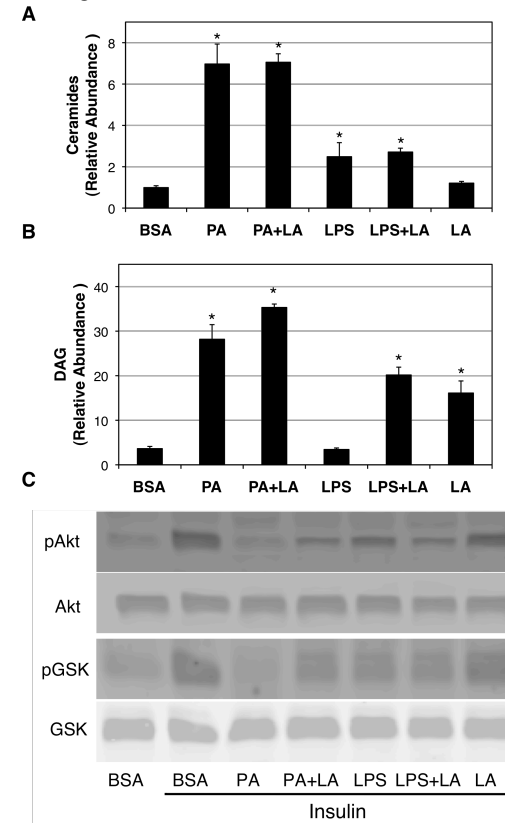


Supplemental Figure 1



Supplemental Figure 1. Effects of palmitate and inflammatory mediators on muscle glucose uptake. 2-deoxyglucose uptake was quantified in the presence (black bars) or absence (white bars) of insulin (300 mU/mL). **(A)** The effect of inflammatory cytokines on hexose uptake. Soleus muscles from adult male mice were incubated for 6 hours in the presence of palmitate (PA; 0.5 mM) or BSA alone. TNF α (20ng/mL), IL-1 (20ng/mL) or vehicle was included for the duration of the 6 hour incubation. **(B)** The effect of palmitate on hexose uptake in TNF α receptor null mice. Soleus muscles from adult male mice were incubated for 6 hours in the presence of palmitate (0.5 mM) or BSA alone. Values expressed as mean \pm SEM (n=4). *P<0.05 for insulin stimulation versus BSA control. # P<0.05 for insulin stimulation with palmitate versus BSA+insulin.

Supplemental Figure 2



Supplemental Figure 2. LPS and palmitate elicit an increase in ceramide synthesis in C₂C₁₂ myotubes. Cultured myotubes treated with palmitate (PA; 0.75 mM) and lipopolysaccharide (LPS; 1ug/ml) for 12 h accumulate ceramide and addition of unsaturated linoleic acid (LA; 0.75 mM) had little or no effect **(A)**. Levels of diacylglycerol were elevated in each condition that included PA or LA but not LPS alone **(B)**. Similarly, insulin signaling at the level of Akt and its substrate, GSK3 β , was reduced in the presence of PA and LPS and inclusion of LA into both incubations had little effect **(C)**. Values expressed as mean \pm SEM (n=4). *P<0.05 for treatment versus BSA control.

Gene	Sequence
	5'-TGGCATTGTTACCAACTGGG
<i>β-actin (actb)</i>	5'-GGGTCATCTTTTCACGGTTG
	5'-TACTCAGAGACCTCCAGCTG
<i>SPT1 (sptlc1)</i>	5'-CACCAGGGATATGCTGTCATC
	5'-GGAGATGCTGAAGCGGAAC
<i>SPT2 (sptlc2)</i>	5'-GTATGAGCTGCTGACAGGCA
	5'-CTGTTCTACTTGGCCTGTTG
<i>CerS1 (lass1)</i>	5'-TCATGCAGGAAGAACACGAG
	5'-TCTTCTCAAAAAGTTCCGAG
<i>CerS2 (lass2)</i>	5'-AGTGATGATGAAAACGAATGG
	5'-TGTCGTTCCAGCTTGAGTGAG
<i>CerS4 (lass4)</i>	5'-AGCAGGCTTCACAGAATTC
	5'-CTCCAACGCTCACGAAATTC
<i>CerS5 (lass5)</i>	5'-ATGCAGACAGAAGATGAGTG
	5'-GTTCCGGAGCATTCAACGCTG
<i>CerS6 (lass6)</i>	5'-CTGAGTCGTGAAGACAGAGG
	5'-CACCGGTACCTCGGAGCGGA
<i>Des1</i>	5'-GTTTGGGATTGATGAACAGGGGT
	5'-GCCTGTAGCCCACGTCGTAGC
<i>TNF</i>	5'-CGGGGCAGCCTTGCCCTTG
	5'-TCTGGAGTACCATAGCTACCTGGAGT
<i>IL-6 (il6)</i>	5'-GGAGAGCATTGGAAATTGGGGTAGGA

Supplemental Table 1. Primers used in qRT-PCR.