Supplementary Data

Inorganic Nitrate Promotes Glucose Uptake and Oxidative Catabolism in White Adipose Tissue through the XOR Catalyzed Nitric Oxide Pathway

Running Title: Nitrate Enhances Adipose Tissue Glucose Metabolism

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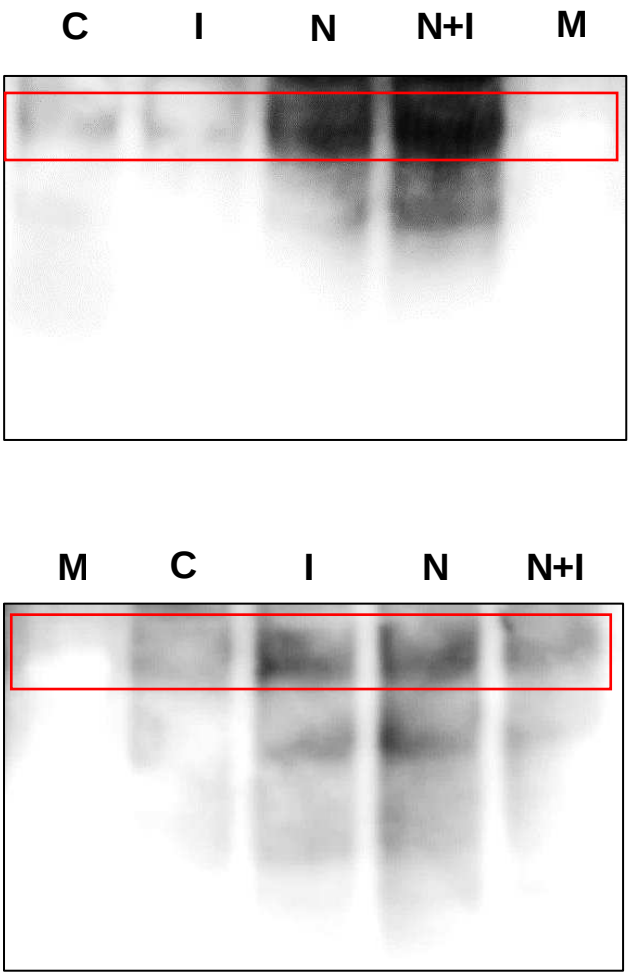
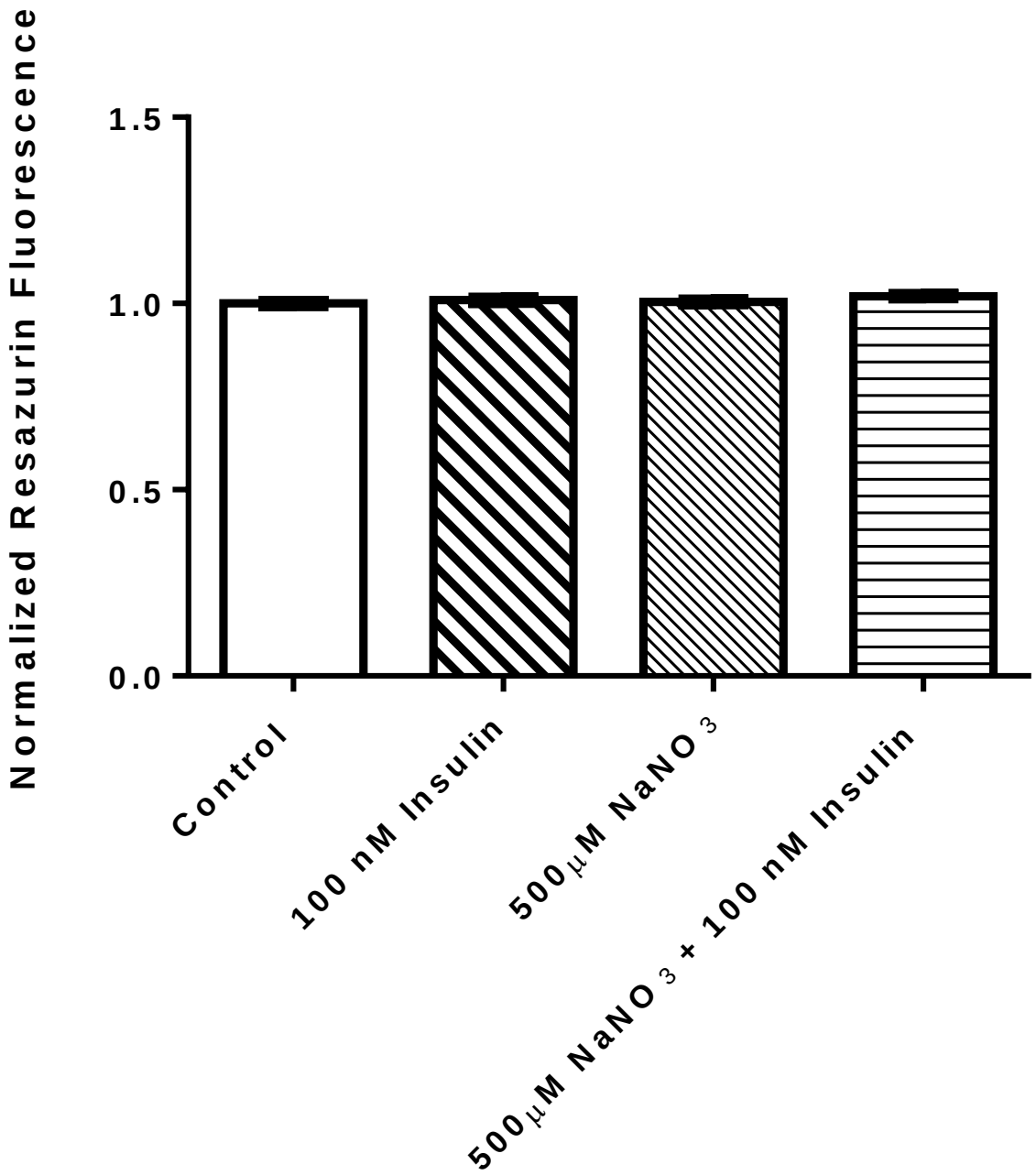
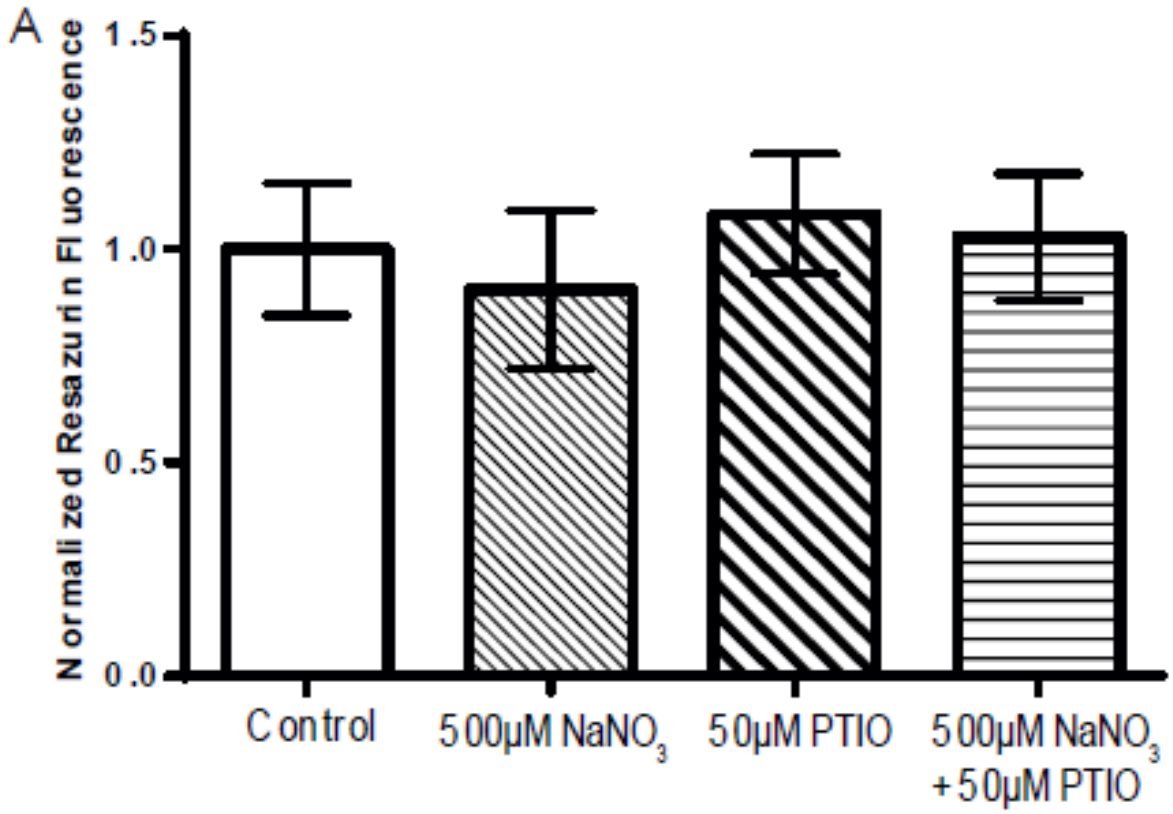


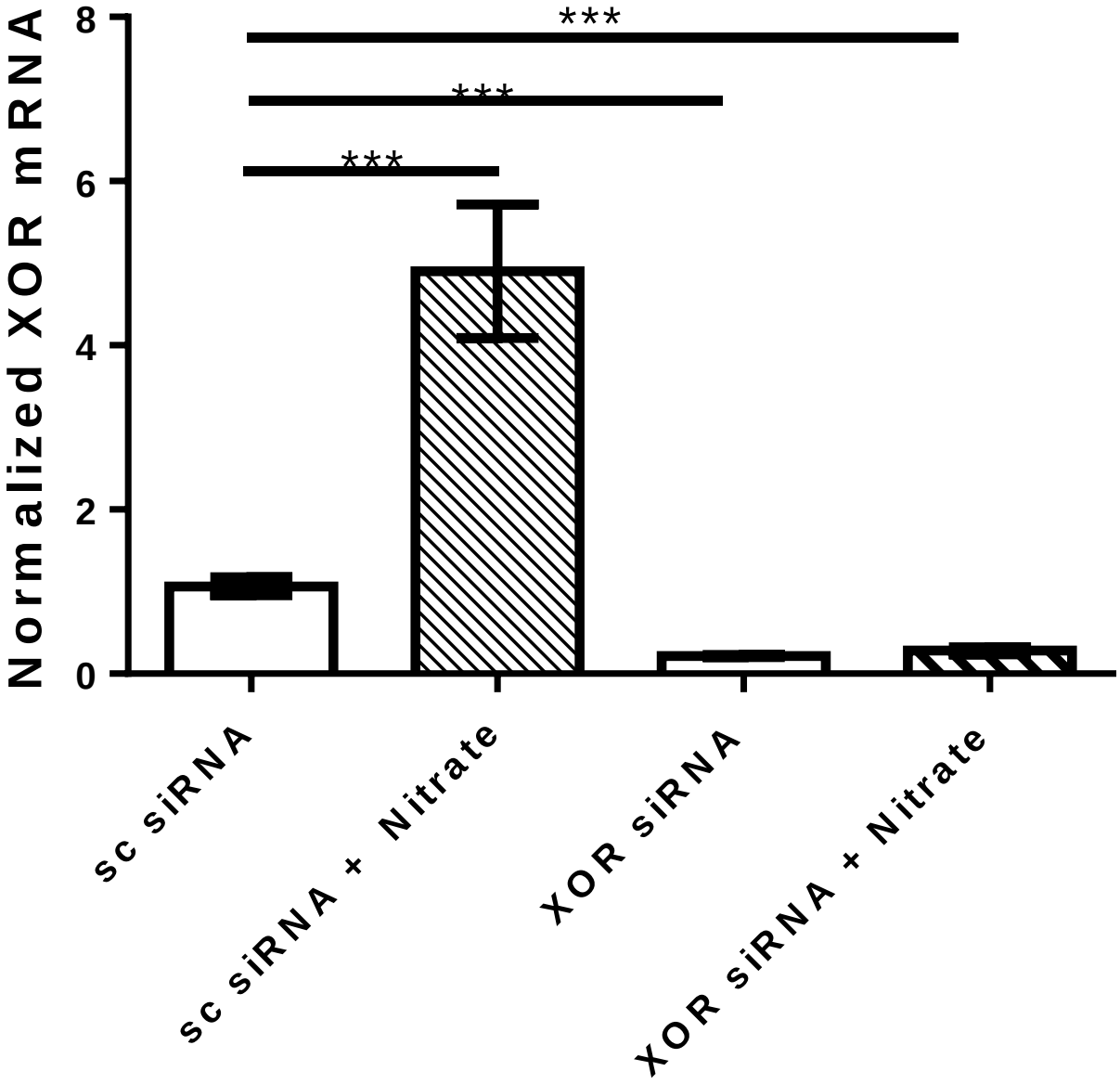
Supplementary Figure 1 Immunoprecipitation blots of cell surface biotinylated Glut4 from primary mouse adipocytes treated with 500 µM nitrate with and without 100 nM insulin showing 50 kDa molecular weight marker. C = control, I = 100 nM insulin, N = 500 µM nitrate, N+I = 500 µM nitrate + 100 nM insulin, M = 50 kDa molecular weight marker.



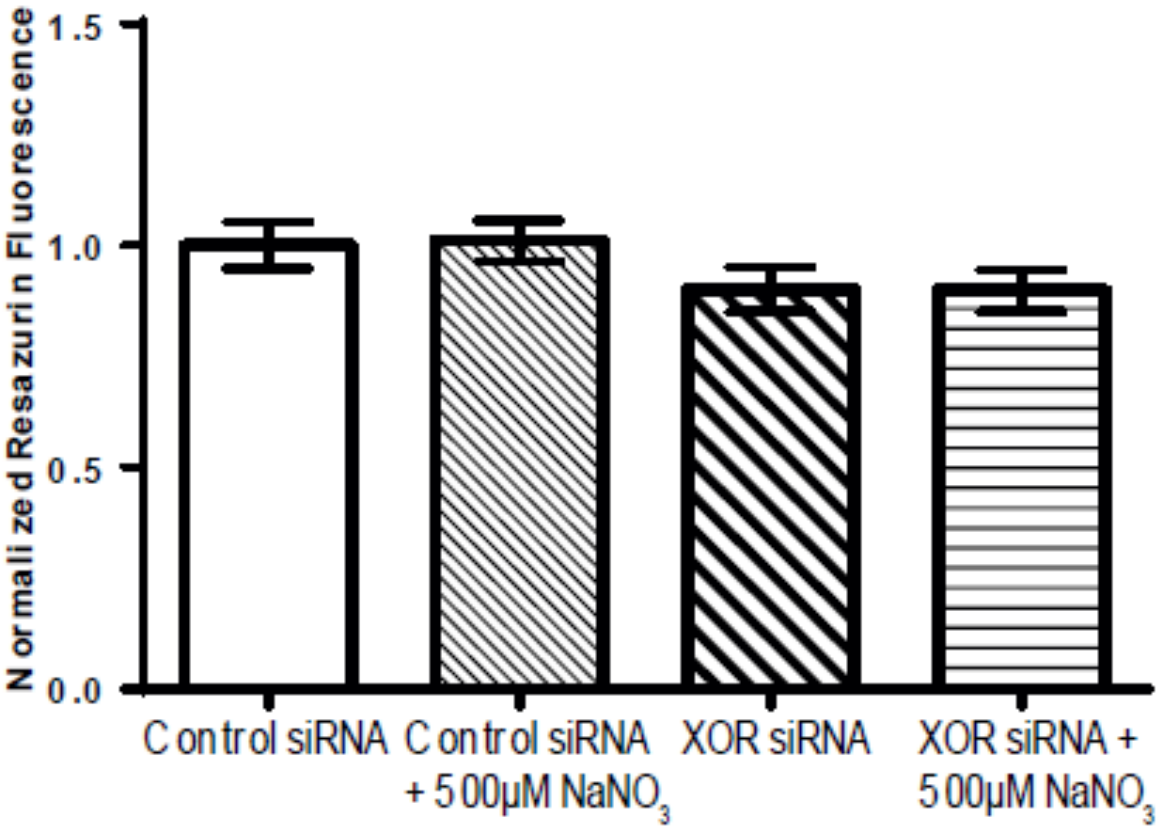
Supplementary Figure 2 Resazurin cell viability assay in primary adipocytes treated with 500 μM nitrate, 100 nM insulin, or 500 μM nitrate and 100 nM insulin ($n \geq 22$). Data is displayed as Mean ± SEM.



Supplementary Figure 3 Resazurin cell viability assay in primary adipocytes treated with 500 µM nitrate, 50 µM PTIO, or 500 µM nitrate and 50 µM PTIO (n = 8). Data is displayed as Mean ± SEM.



Supplementary Figure 4 Xanthine Oxidoreductase (XOR) expression in primary adipocytes treated with scrambled control siRNA or siRNA against XOR with and without 500 µM nitrate (n = 3). Data is displayed as Mean ± SEM. ***, $P \leq 0.001$.



Supplementary Figure 5 Resazurin cell viability assay in primary adipocytes treated with negative control siRNA or siRNA against XOR with and without 500 µM $NaNO_3$ (n = 6). Data is displayed as Mean ± SEM.

Supplementary Table 1. Table of morphological parameters of rats treated with 0.7 mM NaCl or 0.7 mM $NaNO_3$ in drinking water for 18 days. Table detailing start and final weights, food and water intakes, daily nitrate intake, and plasma insulin concentration. Data were analysed by Student's t-test and are Mean ± SEM. *** $P \leq 0.0001$.

	0.7 mM NaCl (n = 6)	**0.7 mM $NaNO_3$ (n = 6)**
Start weight (g)	265 ± 5	270 ± 4
End weight (g)	406 ± 8	415 ± 9
Food intake (g/day)	30 ± 1	30 ± 1
Water intake (mL/day)	30 ± 3	36 ± 3
Nitrate intake (mg/kg/day)	1 ± 1	8 ± 2 ***
Plasma Insulin (µg / L)	1.18 ± 0.2	1.16 ± 0.3