

SUPPLEMENTARY TABLE S2. DETAILS OF QUANTIFICATION AND STATISTICAL ANALYSIS OF WESTERN BLOTS OF ENZYMES INVOLVED IN CYSTEINE AND SULFUR METABOLISM

Tissue	G/D/S group										Significance level for main effects and two-way interactions as analyzed by a general linear model*			
	W-F	N-F	W+F	N+F	W-M	N-M	W+M	N+M	G	D	S	G×S	G×D	D×S
LIVER														
CDO	1.0 <sup>†</sup>	0	0.6	0	0.9	0	0.9	0	F(1,7)=92, p<0.0001	F(1,4)=43, p=0.0028	F(1,4)=18, p=0.0129	F(1,4)=29, p=0.0056	F(1,4)=44, p=0.0027	
CSD (sqrt)	1.0	19.3	0.3	0.3	0.5	11.3	0.3	0.5	F(1,4)=33, p=0.0046					
ADO	1.0	0.9	0.8	0.6	0.6	0.6	0.9	0.8	G(1,4)=7, p=0.0570					
SLC6A6 (sqrt)	1.0	13.8	0.3	0.5	1.3	12.4	0.7	1.1	F(1,4)=116, p=0.0004	F(1,4)=151, p<0.0003	F(1,3)=81, p=0.0029	F(1,4)=87, p<0.0007	F(1,3)=9, p=0.058	
CBS	1.0	1.1	1.0	0.9	0.8	0.8	0.8	0.7						
CTH	1.0	1.0	0.9	0.9	0.9	0.9	1.1	0.9	F(1,6)=8, p=0.0300					
MPST	1.0	0.9	1.0	0.7	0.8	0.7	1.0	0.7						
SQRDL	1.0	1.1	1.0	0.8	1.1	1.1	1.4	1.0		F(1,5)=2, p=0.087	F(1,5)=4, p=0.017			
ETHE1	1.0	1.1	1.0	0.8	0.7	0.9	0.7	0.6		F(1,6)=31, p=0.0014				
TST	1.0	1.1	1.2	1.0	0.8	0.7	0.7	0.6		F(1,3)=2, p=0.092	F(1,3)=7, p=0.0052			
SUOX	1.0	1.2	1.1	0.8	0.7	0.8	0.8	0.6						
PANCREAS														
CDO	1.0	0	0.85	0	2.1	0	3.0	0	F(1,4)=58, p=0.0016	F(1,4)=13, p=0.023				
CSD	Nonspecific-not quantified													
ADO	1.0	1.4	1.3	1.1	1.0	0.9	1.0	1.2						
SLC6A6	Nonspecific-not quantified													
CBS	1.0	1.3	1.1	1.3	1.0	1.3	1.1	1.5	F(1,5)=45, p=0.0011	F(1,5)=5, p=0.076				
CTH	1.0	1.2	1.0	1.2	1.4	1.3	1.2	1.3						
MPST	1.0	1.4	0.8	0.8	0.8	1.0	0.7	0.9						
SQRDL	Nonspecific-not quantified													
ETHE1	1.0	1.2	0.9	0.9	0.9	0.9	0.7	0.7	F(1,4)=21, p=0.0099	F(1,4)=21, p=0.0099				
TST	1.0	1.5	0.8	1.2	0.9	1.0	0.7	1.1	F(1,5)=15, p=0.011	F(1,5)=6, p=0.062				
SUOX	Too low to quantify													
KIDNEY														
CDO	1.0	0	0.5	0	2.2	0	2.2	0	F(1,4)=139, p=0.0003	F(1,2)=25, p=0.038	F(1,4)=34, p=0.0044	F(1,2)=9, p=0.096	F(1,2)=49, p=0.020	
CSD	1	1.0	1.1	1.0	2.0	2.1	1.8	1.7						
ADO	1.0	0.8	0.7	0.8	1.1	1.0	1.1	1.1						
SLC6A6	1.0	0.8	0.8	0.8	1.5	1.5	1.5	1.4						
CBS	1.0	1.0	1.0	1.0	2.4	2.0	2.3	2.1	F(1,4)=18, p=0.0132	F(1,6)=125, p<0.0001	F(1,4)=1152, p<0.0001	F(1,4)=18, p=0.0132	F(1,4)=8, p=0.047	
CTH	1.0	0.8	0.9	0.8	1.0	0.7	0.8	0.8	F(1,4)=18, p=0.013					
MPST	1.0	1.3	0.9	0.8	1.2	1.0	1.2	1.1						
SQRDL	Too low to quantify													
ETHE1	1.0	1.0	0.9	0.9	1.4	1.1	1.1	1.1						
ETHE1	1.0	0.8	0.8	0.7	0.9	0.9	1.1	1.3						
SUOX	1.0	0.9	1.0	0.9	1.3	1.3	1.2	1.2						
LUNG														
CDO	1.0	0	0.8	0	0.9	0	0.8	0	F(1,7)=251, p<0.0001					
CSD	1.0	1.7	1.5	1.3	1.1	1.4	0.9	1.1						
ADO	1.0	0.8	0.8	1.0	0.8	0.9	0.8	1.0						
SLC6A6	1.0	1.4	1.2	1.3	0.9	1.0	1.0	1.1	F(1,5)=7, p=0.050	F(1,5)=11, p=0.0213	F(1,3)=15, p=0.030			
CBS	1.0	0.9	0.9	1.3	0.6	0.7	0.8	1.0						
CTH	1.0	1.1	1.2	1.1	1.1	0.9	1.1	0.8						
MPST	1.0	1.4	0.9	1.3	0.8	1.1	1.0	1.0	F(1,5)=5, p=0.0842					
SQRDL	1.0	1.3	0.8	1.4	0.8	1.2	0.8	1.2	F(1,5)=6, p=0.059					
ETHE1	1.0	1.3	0.9	0.9	0.9	0.7	0.7	0.7	F(1,5)=10, p=0.025					
TST	1.0	1.5	1.1	1.8	1.2	1.9	1.5	1.9	F(1,4)=17, p=0.014					
SUOX	1.0	1.2	1.1	1.7	1.0	1.2	1.0	0.8						

\*Columns on the right give p-values for the main effects and their interactions as analyzed by a general linear model for the three categorical variables (G [N, W]; taurine supplementation [-, no taurine; +, with taurine], and S [F, M]) and some two-way interactions using JMP, version 10 (SAS, Cary, NC). Effect tests with F values significant at p<0.1 are given in the table. Values for liver CSD and SLC6A6 were transformed to square roots before statistical analysis.

<sup>†</sup>Western blots were quantified and normalized by actin. All values represent the intensity of the band for a pooled sample that contained equal amounts of tissue protein from each of the seven mice in the experimental group. All values are expressed relative to the intensity of the band for the WF group, which was set as 1.0.

ADO, 2-aminoethanethiol dioxygenase; CBS, cystathionine β-synthase; CSD, cysteine sulfinate decarboxylase; CTH, cystathionine γ-lyase; ETHE1, ethylmalonic encephalopathy 1; MPST, 3-mercaptopyruvate sulfur transferase; SLC6A6, solute carrier 6A6 (taurine transporter); SQRDL, sulfide quinone reductase; SUOX, sulfite oxidase; TST, thiosulfate sulfur transferase.

G, genotype; N, null; W, wild-type; S, sex; F, female; M, male; D, diet; -, taurine-free diet; +, taurine-supplemented diet.