

SUPPLEMENTARY TABLE S1. (CONTINUED)

	Male												Significance level for main effects as analyzed by a full factorial three-way general linear model (F(1,48))*									
	Female						Male															
	- Taurine diet			+ Taurine diet			- Taurine diet			+ Taurine diet												
	W	N-F	Null	W	W+F	Null	W	W-M	Null	N-M	W	W+M	Null	N+M	G	D	S	G×D	G×S	D×S	G×S×D	
Kidney glycine (nmol/g)	1564±143c	2574±173b	1597±43c	2211±292bc	10938±825a	10322±917a	2764±126b	4329±242a	2868±445b	11266±917ab	10820±655a	2603±136b	2603±136b	2603±136b	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.005	<0.0001
Kidney alanine (nmol/g)	1410±103ab	1338±86ab	1152±79b	1186±82ab	2.4±0.4c	272±21a	1436±54ab	1377±51ab	6.9±0.8c	190±17ab	0.6±0.1c	1353±86ab	1353±86ab	1353±86ab	<0.0001	<0.05	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Kidney COX4 (relative abundance)	1.00±0.23ab	0.75±0.15b	0.84±0.11b	0.94±0.17ab	175±10bc	1768±141a	1.52±0.09a	1.04±0.12ab	238±29a	56±4c	119±5c	1.15±0.11ab	1.15±0.11ab	1.15±0.11ab	<0.05	<0.05	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Kidney COX5b (relative abundance)	1.00±0.08ab	0.83±0.10b	0.91±0.08b	0.95±0.06b	1952±131a	1703±127a	1.52±0.09a	1.10±0.15ab	1952±78a	1703±127a	1716±52a	1.13±0.17ab	1.13±0.17ab	1.13±0.17ab	<0.05	<0.0005	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
LUNG																						
Lung taurine (nmol/g)	9183±327a	3524±747b	10938±825a	10571±720a	10322±917a	10322±917a	10322±917a	10322±917a	2868±445b	11266±917ab	10820±655a	10820±655a	10820±655a	10820±655a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.005	<0.0001
Lung hypotaurine (nmol/g)	193±19b	6.8±0.8c	2.4±0.4c	213±26b	2.4±0.4c	272±21a	272±21a	272±21a	6.9±0.8c	190±17ab	0.6±0.1c	0.6±0.1c	0.6±0.1c	0.6±0.1c	<0.0001	<0.05	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Lung cysteine (nmol/g)	60±5cd	202±19ab	175±10bc	65±1cd	175±10bc	66±4cd	66±4cd	66±4cd	238±29a	56±4c	119±5c	119±5c	119±5c	119±5c	<0.0001	<0.05	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Lung glutathione (nmol/g)	1742±178a	1978±183a	1952±131a	1782±127a	1952±131a	1768±141a	1768±141a	1768±141a	1952±78a	1703±127a	1716±52a	1716±52a	1716±52a	1716±52a	<0.0001	<0.05	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Lung cystathionine (nmol/g)	2.7±0.3cd	7.4±0.7a	4.9±1.0b	2.9±0.2c	4.9±1.0b	1.8±0.1bc	1.8±0.1bc	1.8±0.1bc	9.6±1.1a	2.1±0.2c	4.2±0.4bc	4.2±0.4bc	4.2±0.4bc	4.2±0.4bc	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.05	<0.005	<0.0001
Lung lanthionine (nmol/g)	0.19±0.04bc	0.51±0.07a	0.24±0.03b	0.08±0.02c	0.24±0.03b	0.18±0.04bc	0.18±0.04bc	0.18±0.04bc	0.44±0.04a	0.08±0.01c	0.18±0.01bc	0.18±0.01bc	0.18±0.01bc	0.18±0.01bc	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.005	<0.0001
Lung homocysteine (nmol/g)	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lung methionine (nmol/g)	26±2b	31±3ab	39±2a	32±3ab	39±2a	34±4ab	34±4ab	34±4ab	36±3ab	33±3ab	36±4ab	36±4ab	36±4ab	36±4ab	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lung serine (nmol/g)	182±11ab	228±15a	176±7bc	217±7ab	176±7bc	192±6abc	192±6abc	192±6abc	203±8abc	169±12c	170±15bc	170±15bc	170±15bc	170±15bc	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lung glycine (nmol/g)	3096±130abc	3543±161a	2604±97cd	3403±119ab	2604±97cd	3204±58abc	3204±58abc	3204±58abc	3536±220a	2717±272bcd	2400±143d	2400±143d	2400±143d	2400±143d	<0.0001	<0.0001	<0.1	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Lung alanine (nmol/g)	848±38a	849±58a	813±38a	900±43a	813±38a	921±22a	921±22a	921±22a	932±53a	860±48a	845±46a	845±46a	845±46a	845±46a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Lung COX4 (relative abundance)	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Lung COX5b (relative abundance)	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	Too low to quantify	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
SERUM																						
Serum taurine (nmol/ml)	479±67bc	57±15d	392±37c	745±96ab	392±37c	340±13c	340±13c	340±13c	26±5d	830±57a	780±95a	780±95a	780±95a	780±95a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum hypotaurine (nmol/ml)	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum cysteine (nmol/ml)	103±7c	158±11ab	166±11ab	92±4c	166±11ab	92±7c	92±7c	92±7c	208±16a	88±5c	100±5c	100±5c	100±5c	100±5c	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum glutathione (nmol/ml)	153±72a	170±24a	126±29a	167±26a	126±29a	166±30a	166±30a	166±30a	206±19a	233±46a	154±28a	154±28a	154±28a	154±28a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum cystathionine (nmol/ml)	1.1±0.1c	6.1±0.6ab	4.8±0.9b	1.3±0.2c	4.8±0.9b	1.7±0.2c	1.7±0.2c	1.7±0.2c	8.9±0.9a	1.9±0.2c	5.8±1.2b	5.8±1.2b	5.8±1.2b	5.8±1.2b	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum lanthionine (nmol/ml)	0.06±0.01b	0.35±0.03a	0.33±0.04a	0.04±0.01b	0.33±0.04a	0.07±0.01b	0.07±0.01b	0.07±0.01b	0.49±0.04a	0.07±0.01b	0.32±0.07a	0.32±0.07a	0.32±0.07a	0.32±0.07a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum homocysteine (nmol/ml)	6.6±0.6a	1.2±0.1d	2.0±0.7cd	7.3±0.8a	2.0±0.7cd	4.3±0.4bc	4.3±0.4bc	4.3±0.4bc	1.3±0.1d	5.6±0.9ab	1.3±0.2d	1.3±0.2d	1.3±0.2d	1.3±0.2d	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum methionine (nmol/ml)	50±4a	42±10a	65±5a	56±6a	65±5a	64±6a	64±6a	64±6a	62±3a	69±7a	63±5a	63±5a	63±5a	63±5a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum serine (nmol/ml)	141±10a	103±31a	158±9a	164±5a	158±9a	146±9a	146±9a	146±9a	143±6a	163±8a	139±15a	139±15a	139±15a	139±15a	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum glycine (nmol/ml)	196±11abc	189±18bc	207±8abc	257±17a	207±8abc	200±16abc	200±16abc	200±16abc	149±6c	236±20ab	201±17abc	201±17abc	201±17abc	201±17abc	<0.01	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
Serum alanine (nmol/ml)	558±45ab	447±125ab	549±43ab	538±28ab	549±43ab	575±36ab	575±36ab	575±36ab	470±18b	661±53a	541±1ab	541±1ab	541±1ab	541±1ab	<0.05	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001	<0.0001
URINE																						
Thiosulfate (μmol/mg creatinine)	93±12c	419±21a	499±36a	99±14c	499±36a	110±14c	110±14c	110±14c	319±27b	119±29c	507±83a	507±83a	507±83a	507±83a	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001	<0.05	<0.0001	<0.0001

*Columns on the right give p-values for the main effects and their interactions as analyzed by a full-factorial three-way general linear model using JMP version 10 (SAS, Cary, NC). Cystathionine and lanthionine values were transformed to square root before statistical analysis.

†Each value is the mean±SEM for seven mice. The letters following each value within a row indicate that values not followed by the same letter were significantly different at p<0.05 according to post hoc comparisons among means made by Tukey's test.

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

CDO, cysteine dioxygenase; COX, cytochrome c oxidase.