

SUPPLEMENTAL TABLE 1

The absolute weights of tissues in 31-wk-old rats at the end of a 12-wk period of consuming low-fat or high-fat diet and water containing either 1.51% L-arginine-HCl or 2.55% L-alanine ¹

Tissues	Absolute weight				P value		
	LF-Ala ²	LF-Arg	HF-Ala	HF-Arg	Diet	AA	Diet x AA
	g	g	g	g			
Heart	1.67 ± 0.07 ^b	1.71 ± 0.07 ^b	2.05 ± 0.10 ^a	1.94 ± 0.10 ^a	<0.01	0.66	0.36
Lungs	1.73 ± 0.04 ^b	1.76 ± 0.08 ^b	2.13 ± 0.06 ^a	2.08 ± 0.07 ^a	<0.01	0.86	0.53
Liver	12.9 ± 0.83 ^b	12.1 ± 0.47 ^b	14.8 ± 0.52 ^a	13.6 ± 0.56 ^a	<0.01	0.12	0.82
Spleen	0.84 ± 0.04	0.80 ± 0.03	0.89 ± 0.02	0.88 ± 0.04	0.06	0.47	0.62
Kidneys	2.85 ± 0.10 ^b	2.85 ± 0.08 ^b	3.13 ± 0.06 ^a	3.04 ± 0.10 ^a	0.01	0.62	0.61
RP adipose tissue	7.41 ± 0.69 ^b	4.51 ± 0.33 ^c	11.2 ± 1.34 ^a	7.44 ± 0.46 ^b	<0.01	<0.01	0.62
EP adipose tissue	7.45 ± 0.63 ^c	5.89 ± 0.33 ^d	11.0 ± 0.86 ^a	8.79 ± 0.60 ^b	<0.01	<0.01	0.64
SC adipose tissue	6.78 ± 0.46 ^c	4.54 ± 0.27 ^d	13.3 ± 1.18 ^a	8.83 ± 0.76 ^b	<0.01	<0.01	0.15
MT adipose tissue	3.16 ± 0.35 ^b	1.75 ± 0.16 ^c	4.57 ± 0.63 ^a	2.84 ± 0.18 ^b	<0.03	<0.01	0.68
Major white-fat ³	24.8 ± 1.7 ^b	16.6 ± 1.2 ^c	40.2 ± 3.0 ^a	27.9 ± 1.9 ^b	<0.01	<0.01	0.60
Brown adipose tissue	0.57 ± 0.02 ^b	0.73 ± 0.03 ^a	0.62 ± 0.04 ^b	0.81 ± 0.04 ^a	0.08	<0.01	0.72
Small intestine	6.41 ± 0.45 ^b	5.85 ± 0.29 ^c	7.64 ± 0.33 ^a	6.41 ± 0.40 ^b	0.02	0.02	0.37
Pancreas	0.96 ± 0.09	1.06 ± 0.04	1.04 ± 0.04	1.08 ± 0.12	0.53	0.43	0.71
Soleus muscle	0.160 ± 0.005 ^c	0.177 ± 0.004 ^b	0.186 ± 0.005 ^b	0.199 ± 0.006 ^a	<0.01	0.02	0.67
EDL muscle	0.170 ± 0.003 ^c	0.181 ± 0.003 ^b	0.189 ± 0.004 ^b	0.201 ± 0.003 ^a	<0.01	<0.01	0.99
Testes	3.89 ± 0.09	3.79 ± 0.06	3.78 ± 0.06	3.91 ± 0.07	0.97	0.83	0.14
Brain	1.75 ± 0.06	1.80 ± 0.05	1.69 ± 0.07	1.83 ± 0.03	0.83	0.09	0.46

¹ Values are means ± SEM, n=8. Means with different superscript letters (a-c) within a row differ ($P < 0.05$).

² Abbreviations used: AA, amino acid; EDL, extensor digitorum longus; EP, epididymal; HF-Ala, high-fat diet + L-alanine supplementation; HF-Arg, high-fat diet + L-arginine supplementation; LF-Ala, low-fat diet + L-alanine supplementation; LF-Arg, low-fat diet + L-arginine supplementation; MT, Mesenteric; RP, retroperitoneal; SC, subcutaneous (inguinal).

³ The sum of RP, EP, SC, and MT adipose tissues.

SUPPLEMENTAL TABLE 2

The relative weights of tissues in 31-wk-old rats at the end of a 12-wk period of consuming low-fat or high-fat diet and water containing either 1.51% L-arginine-HCl or 2.55% L-alanine ¹

Tissues	Relative weight of tissue (tissue weight/body weight x 100)				P value		
	LF-Ala ²	LF-Arg	HF-Ala	HF-Arg	Diet	AA	Diet x AA
	%	%	%	%			
Heart	0.36 ± 0.01	0.38 ± 0.02	0.38 ± 0.02	0.37 ± 0.02	0.63	0.68	0.44
Lung	0.37 ± 0.01	0.39 ± 0.02	0.39 ± 0.01	0.40 ± 0.01	0.27	0.41	0.75
Liver	2.75 ± 0.16	2.66 ± 0.12	2.72 ± 0.11	2.63 ± 0.04	0.79	0.45	0.98
Spleen	0.18 ± 0.01	0.18 ± 0.01	0.17 ± 0.01	0.17 ± 0.01	0.12	0.89	0.48
Kidney	0.61 ± 0.02	0.63 ± 0.02	0.58 ± 0.02	0.59 ± 0.02	0.07	0.51	0.79
Small intestine	1.37 ± 0.10	1.29 ± 0.06	1.41 ± 0.06	1.24 ± 0.07	0.90	0.11	0.56
Pancreas	0.21 ± 0.02	0.23 ± 0.01	0.19 ± 0.01	0.21 ± 0.02	0.24	0.21	0.68
Testes	0.83 ± 0.02 ^a	0.83 ± 0.02 ^a	0.71 ± 0.02 ^b	0.75 ± 0.02 ^b	<0.01	0.11	0.64
Brain	0.37 ± 0.01 ^b	0.40 ± 0.01 ^a	0.31 ± 0.01 ^c	0.35 ± 0.01 ^b	<0.01	<0.04	0.37

¹ Values are means ± SEM, n=8. Means with different superscript letters (a-c) within a row differ ($P < 0.05$).

² Abbreviations used: AA, amino acid; HF-Ala, high-fat diet + L-alanine supplementation; HF-Arg, high-fat diet + L-arginine supplementation; LF-Ala, low-fat diet + L-alanine supplementation; LF-Arg, low-fat diet + L-arginine supplementation.

SUPPLEMENTAL TABLE 3

Serum concentrations of hormones in 31-wk-old rats at the end of a 12-wk period of consuming low-fat or high-fat diet and water containing either 1.51% L-arginine-HCl or 2.55% L-alanine ¹

Variables	Concentrations in serum				P value		
	LF-Ala	LF-Arg	HF-Ala	HF-Arg	Diet	AA ²	Diet x AA
Adiponectin, µg/L	4.95 ± 0.30	5.64 ± 0.33	4.98 ± 0.23	5.03 ± 0.13	0.26	0.16	0.22
Growth Hormone, µg/L	4.82 ± 1.18	4.84 ± 1.37	4.62 ± 1.45	5.06 ± 0.96	0.99	0.88	0.89
Corticosterone, µg/L	64.9 ± 6.9	64.0 ± 16.2	62.2 ± 12.0	60.9 ± 17.2	0.84	0.94	0.99
Total triiodothyronine, ng/L	722 ± 48	691 ± 45	701 ± 59	687 ± 48	0.83	0.68	0.88
Total thyroxine, ng/L	33.9 ± 2.2	31.2 ± 0.9	32.2 ± 1.0	32.0 ± 1.8	0.77	0.36	0.43

¹ Values are means ± SEM, n=8.

² Abbreviation used: AA, amino acid; HF-Ala, high-fat diet + L-alanine supplementation; HF-Arg, high-fat diet + L-arginine supplementation; LF-Ala, low-fat diet + L-alanine supplementation; LF-Arg, low-fat diet + L-arginine supplementation.