

**Supplementary Table 1:** Effects of L-theanine on the weight of mice

Group	Weight/g						Weight Changes/g	
	0 d	7 d	14 d	21 d	28 d	35 d	A	B
CK	22.38±0.45	23.41±0.83	24.14±1.01	24.73±1.22	25.34±1.13	26.05±1.16	0.72±0.51 <sup>a</sup>	2.64±0.99 <sup>a</sup>
MOD	23.08±1.33	23.99±1.68	23.84±2.10	24.39±2.39	25.50±2.49	23.63±2.04	-2.50±0.53 <sup>c</sup>	-0.36±0.95 <sup>c</sup>
S-LLT	22.90±1.11	23.74±0.90	24.50±1.48	24.62±1.55	25.47±1.49	23.74±1.23	-1.85±0.50 <sup>bc</sup>	0.02±1.19 <sup>bc</sup>
S-MLT	22.78±0.98	24.33±1.31	25.17±1.36	25.38±1.41	26.20±1.53	23.95±1.22	-1.94±0.42 <sup>bc</sup>	0.15±0.48 <sup>bc</sup>
S-HLT	22.74±1.01	24.08±1.10	24.72±1.43	25.38±1.41	26.39±1.51	24.10±1.13	-1.97±0.34 <sup>bc</sup>	0.30±0.76 <sup>bc</sup>
L-LLT	22.79±1.14	24.17±1.22	24.57±1.13	24.97±1.05	26.26±1.18	24.11±0.92	-2.01±0.53 <sup>bc</sup>	0.49±0.98 <sup>bc</sup>
L-MLT	22.91±1.60	24.34±1.85	24.55±1.65	25.29±1.51	26.32±1.52	24.31±1.28	-1.48±0.20 <sup>b</sup>	1.00±0.44 <sup>b</sup>
L-HLT	22.81±0.99	23.40±1.07	24.08±1.13	24.82±1.24	25.86±1.54	24.18±1.51	-1.85±0.31 <sup>bc</sup>	0.99±1.03 <sup>b</sup>

**Note:** A Changes in weight during the HS; B Increased weight. Data are presented as mean ± SD ( $n = 10$ ). Lowercase letters above the columns in the same group indicate that the one-way ANOV A of the means differs significantly ( $P < 0.05$ ).

**Supplementary Table 2:** Effects of L-theanine on the feed intake of mice

Group	Feed intake/g					Feed intake Changes/g	
	Week 1	Week 2	Week 3	Week 4	Week 5	A	B
CK	263.4	305.9	328.1	316.7	318.9	2.20	55.5
MOD	277.3	258.5	258.4	266.6	223.8	-42.8	-53.5
S-LLT	232.8	288.3	249.4	270.7	230.2	-40.5	-2.6
S-MLT	269.1	265.7	252.2	275.6	235.5	-40.1	-33.6
S-HLT	325.6	267.2	256.3	267.2	229.6	-37.6	-96
L-LLT	249.2	272.5	258.0	281.1	271.4	-9.7	22.2
L-MLT	283.3	294.4	280.5	279.6	270.6	-9	-12.7
L-HLT	292.6	296.0	291.5	289.8	273.7	-16.1	-18.9

**Note:** A Changes in feed intake during the heat stress; B Changes in feed intake during the feeding period.