

Supplementary Table S1. Effects of synbiotics supplementation on plasma amino acid composition in rats with chronic alcohol feeding¹.

nM	C	E	SC	PSE	ASE
Valine	245.19 ± 41.58	423.52 ± 196.93	228.22 ± 49.80	347.22 ± 251.22	400.15 ± 216.08
Isoleucine	315.18 ± 20.20	360.62 ± 32.57	335.44 ± 119.90	290.68 ± 31.11	329.83 ± 53.60
Leucine	320.13 ± 18.69 ^{ab}	478.34 ± 127.03 ^a	294.63 ± 49.96 ^b	370.45 ± 108.23 ^{ab}	362.15 ± 56.41 ^{ab}
ΣBCAAs	880.50 ± 55.20	1262.48 ± 312.64	858.30 ± 211.11	1008.36 ± 329.78	1092.13 ± 237.87
Phenylalanine	313.07 ± 89.79 ^b	514.39 ± 13.56 ^a	330.12 ± 68.80 ^b	249.97 ± 22.25 ^b	372.44 ± 123.46 ^b
Tryptophan	33.35 ± 5.56	38.27 ± 0.38	37.19 ± 1.70	33.90 ± 4.71	36.19 ± 1.89
Tyrosine	158.00 ± 17.86 ^{ab}	191.25 ± 5.97 ^a	160.96 ± 24.58 ^{ab}	131.91 ± 31.54 ^b	166.03 ± 11.50 ^{ab}
ΣAAAs	504.43 ± 102.50 ^b	743.92 ± 11.91 ^a	528.28 ± 82.42 ^b	415.79 ± 43.81 ^b	574.66 ± 134.20 ^b
Methionine	20.97 ± 5.31 ^b	35.77 ± 5.30 ^a	17.75 ± 13.57 ^b	4.54 ± 1.50 ^c	21.58 ± 4.03 ^b
Histidine	1.13 ± 1.96 ^b	719.03 ± 549.24 ^a	132.30 ± 229.15 ^b	0.00 ± 0.00 ^b	15.47 ± 26.79 ^b
Alanine	6.40 ± 11.09 ^b	52.80 ± 34.01 ^a	0.00 ± 0.00 ^b	16.80 ± 8.05 ^b	15.00 ± 13.85 ^b
Arginine	2.95 ± 0.74 ^a	1.10 ± 0.36 ^b	1.02 ± 0.09 ^b	0.68 ± 0.72 ^b	1.21 ± 0.46 ^b
Proline	42.29 ± 12.12 ^b	59.41 ± 6.96 ^a	52.36 ± 2.12 ^{ab}	50.37 ± 3.19 ^{ab}	53.63 ± 3.99 ^{ab}
Lysine	4.93 ± 2.53	7.00 ± 1.74	6.44 ± 0.38	4.76 ± 1.17	5.18 ± 1.09
Glutamine	7.76 ± 0.20 ^a	6.81 ± 0.53 ^{ab}	6.05 ± 0.53 ^b	4.48 ± 0.68 ^c	4.18 ± 1.25 ^c
Glutamic acid	2.78 ± 0.47	2.82 ± 0.39	2.80 ± 0.08	3.14 ± 0.54	2.98 ± 0.28
Aspartic acid	0.20 ± 0.14	0.24 ± 0.14	0.22 ± 0.24	0.29 ± 0.22	0.02 ± 0.04
Asparagine	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Threonine	0.00 ± 0.00	0.11 ± 0.19	0.03 ± 0.05	0.00 ± 0.00	0.49 ± 0.85
Serine	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

¹ Data are expressed as the mean ± standard deviation (*n* = 6). Different letters (a, b, and c) indicate a significant difference at *p* < 0.05 by a one-way ANOVA with Duncan's post-hoc test.

Supplementary Table S2. Effects of synbiotics supplementation on hepatic amino acid composition in rats with chronic alcohol feeding¹.

mM/g protein	C	E	SC	PSE	ASE
Valine	47.38 ± 18.61	41.45 ± 10.03	38.32 ± 9.60	32.62 ± 2.71	44.07 ± 10.12
Isoleucine	55.71 ± 16.30 ^a	51.88 ± 7.97 ^{ab}	43.10 ± 10.17 ^{ab}	33.53 ± 6.20 ^{ab}	25.85 ± 23.40 ^b
Leucine	63.41 ± 30.60 ^a	42.30 ± 16.15 ^{ab}	35.38 ± 11.20 ^{ab}	16.12 ± 3.17 ^b	19.03 ± 14.76 ^b
ΣBCAAs	166.50 ± 48.43 ^a	135.63 ± 24.98 ^{ab}	116.80 ± 29.96 ^{ab}	82.27 ± 11.76 ^b	88.95 ± 34.40 ^b
Phenylalanine	54.47 ± 18.37 ^a	45.48 ± 7.63 ^{ab}	34.59 ± 8.33 ^b	30.16 ± 2.02 ^b	38.06 ± 3.81 ^{ab}
Tryptophan	1.44 ± 0.45 ^a	1.18 ± 0.14 ^{ab}	1.13 ± 0.27 ^{ab}	0.81 ± 0.07 ^b	1.00 ± 0.08 ^{ab}
Tyrosine	40.00 ± 11.25 ^a	36.44 ± 6.34 ^{ab}	28.44 ± 6.95 ^{ab}	25.05 ± 2.74 ^b	30.82 ± 3.09 ^{ab}
ΣAAAs	95.92 ± 29.40 ^a	83.11 ± 14.10 ^{ab}	64.16 ± 15.53 ^{ab}	56.03 ± 4.76 ^b	69.88 ± 6.84 ^{ab}
Methionine	14.16 ± 11.37	9.91 ± 4.98	16.96 ± 2.35	8.80 ± 1.43	13.04 ± 4.26
Histidine	2.70 ± 0.96 ^a	2.20 ± 0.22 ^{ab}	0.82 ± 1.08 ^b	1.57 ± 0.19 ^{ab}	1.33 ± 1.07 ^{ab}
Alanine	0.24 ± 0.04 ^{ab}	0.34 ± 0.07 ^a	0.21 ± 0.07 ^b	0.18 ± 0.03 ^b	0.29 ± 0.07 ^{ab}
Arginine	0.07 ± 0.02	0.04 ± 0.01	0.06 ± 0.03	0.04 ± 0.01	0.04 ± 0.01
Proline	11.97 ± 2.88 ^b	21.65 ± 5.87 ^a	20.10 ± 4.90 ^{ab}	14.72 ± 1.00 ^{ab}	20.86 ± 2.62 ^{ab}
Lysine	4.18 ± 3.87	3.53 ± 1.92	2.92 ± 1.06	1.80 ± 0.62	1.70 ± 0.67
Glutamine	5.27 ± 3.08 ^a	2.43 ± 0.36 ^{ab}	2.73 ± 1.31 ^{ab}	2.18 ± 0.28 ^b	2.22 ± 0.10 ^b
Glutamic acid	3.56 ± 0.15 ^a	2.06 ± 0.49 ^b	2.77 ± 0.19 ^{ab}	2.08 ± 0.41 ^b	2.54 ± 0.81 ^b
Aspartic acid	5.54 ± 2.84	5.88 ± 2.73	4.74 ± 1.11	4.68 ± 1.53	5.77 ± 2.12
Asparagine	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Threonine	6.41 ± 7.19	2.59 ± 2.46	3.28 ± 2.62	0.92 ± 0.70	2.97 ± 0.22
Serine	0.0000 ± 0.0000	0.0000 ± 0.0000	0.0009 ± 0.0015	0.0000 ± 0.0000	0.0008 ± 0.0013

¹ Data are expressed as the mean ± standard deviation ($n = 6$). Different letters (a and b) indicate a significant difference at $p < 0.05$ by a one-way ANOVA with Duncan's post-hoc test.

Supplementary Table S3. Effects of synbiotics on supplementation on muscle amino acid composition in rats with chronic alcohol feeding¹.

mM/g protein	C	E	SC	PSE	ASE
Valine	18.18 ± 17.30	30.52 ± 5.85	48.06 ± 28.55	24.57 ± 7.16	20.38 ± 8.53
Isoleucine	19.32 ± 6.13	50.74 ± 30.80	62.66 ± 37.97	24.87 ± 8.42	47.51 ± 19.61
Leucine	34.16 ± 13.70	45.13 ± 10.10	48.67 ± 21.56	34.31 ± 10.15	66.76 ± 27.46
ΣBCAAs	71.65 ± 30.63	126.39 ± 39.23	159.39 ± 80.58	83.75 ± 20.33	134.65 ± 36.85
Phenylalanine	33.64 ± 23.88 ^b	65.79 ± 21.29 ^{ab}	88.38 ± 27.22 ^a	51.57 ± 23.39 ^{ab}	46.65 ± 17.13 ^{ab}
Tryptophan	1.29 ± 0.69	1.48 ± 0.85	2.02 ± 0.64	1.14 ± 0.42	2.35 ± 1.87
Tyrosine	19.27 ± 8.88	33.87 ± 11.16	64.67 ± 57.31	18.85 ± 7.18	37.40 ± 11.36
ΣAAAs	54.20 ± 30.47 ^b	101.14 ± 27.49 ^{ab}	155.08 ± 84.68 ^a	71.56 ± 30.96 ^{ab}	86.39 ± 22.36 ^{ab}
Methionine	2.90 ± 1.69 ^b	5.29 ± 0.80 ^{ab}	9.58 ± 5.16 ^a	4.49 ± 1.71 ^{ab}	5.73 ± 1.75 ^{ab}
Histidine	0.29 ± 0.28	1.38 ± 1.14	1.30 ± 1.02	0.72 ± 0.22	1.25 ± 0.69
Alanine	0.18 ± 0.17	0.19 ± 0.15	0.30 ± 0.14	0.13 ± 0.03	0.43 ± 0.32
Arginine	0.20 ± 0.06	0.27 ± 0.22	0.45 ± 0.14	0.22 ± 0.11	0.38 ± 0.21
Proline	3.29 ± 2.32	5.28 ± 1.81	5.64 ± 2.55	3.28 ± 1.79	4.03 ± 2.03
Lysine	0.39 ± 0.11 ^b	0.51 ± 0.35 ^{ab}	1.10 ± 0.52 ^a	0.25 ± 0.08 ^b	0.77 ± 0.33 ^{ab}
Glutamine	0.37 ± 0.22	0.29 ± 0.33	0.38 ± 0.35	0.22 ± 0.04	0.43 ± 0.24
Glutamic acid	1.38 ± 0.99 ^b	2.51 ± 0.97 ^b	5.58 ± 2.81 ^a	1.76 ± 0.51 ^b	1.99 ± 1.16 ^b
Aspartic acid	0.11 ± 0.05 ^{ab}	0.01 ± 0.02 ^b	0.27 ± 0.26 ^a	0.09 ± 0.03 ^{ab}	0.06 ± 0.05 ^{ab}
Asparagine	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Threonine	0.0000 ± 0.0000	0.0000 ± 0.0000	0.0087 ± 0.0150	0.0000 ± 0.0000	0.1259 ± 0.2181
Serine	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00

¹ Data are expressed as the mean ± standard deviation ($n = 6$). Different letters (a and b) indicate a significant difference at $p < 0.05$ by a one-way ANOVA with Duncan's post-hoc test.