

Figure S2: Postprandial (A) diastolic blood pressure, (B) systolic blood pressure and (C) pulse of study participants who received either the test meal (TM) without additional protein (□), the TM with 28 g rapeseed protein isolate (RPI) (◆) or the TM with 28 g soy protein isolate (SPI) (▲). Differences in blood pressure and pulse after the ingestion of the three test meals over 6 h were evaluated with a mixed model to test the effects of treatment, time, and their interaction (treatment × time) on each parameter. The value at baseline (before treatment) was considered a covariate. All p values were adjusted according to the Tukey-Kramer multiple group comparison procedure. For time point analysis, the paired t test was applied. Significance was accepted as $p < 0.05$. Data are presented as LSMs ± SEs (n = 19).

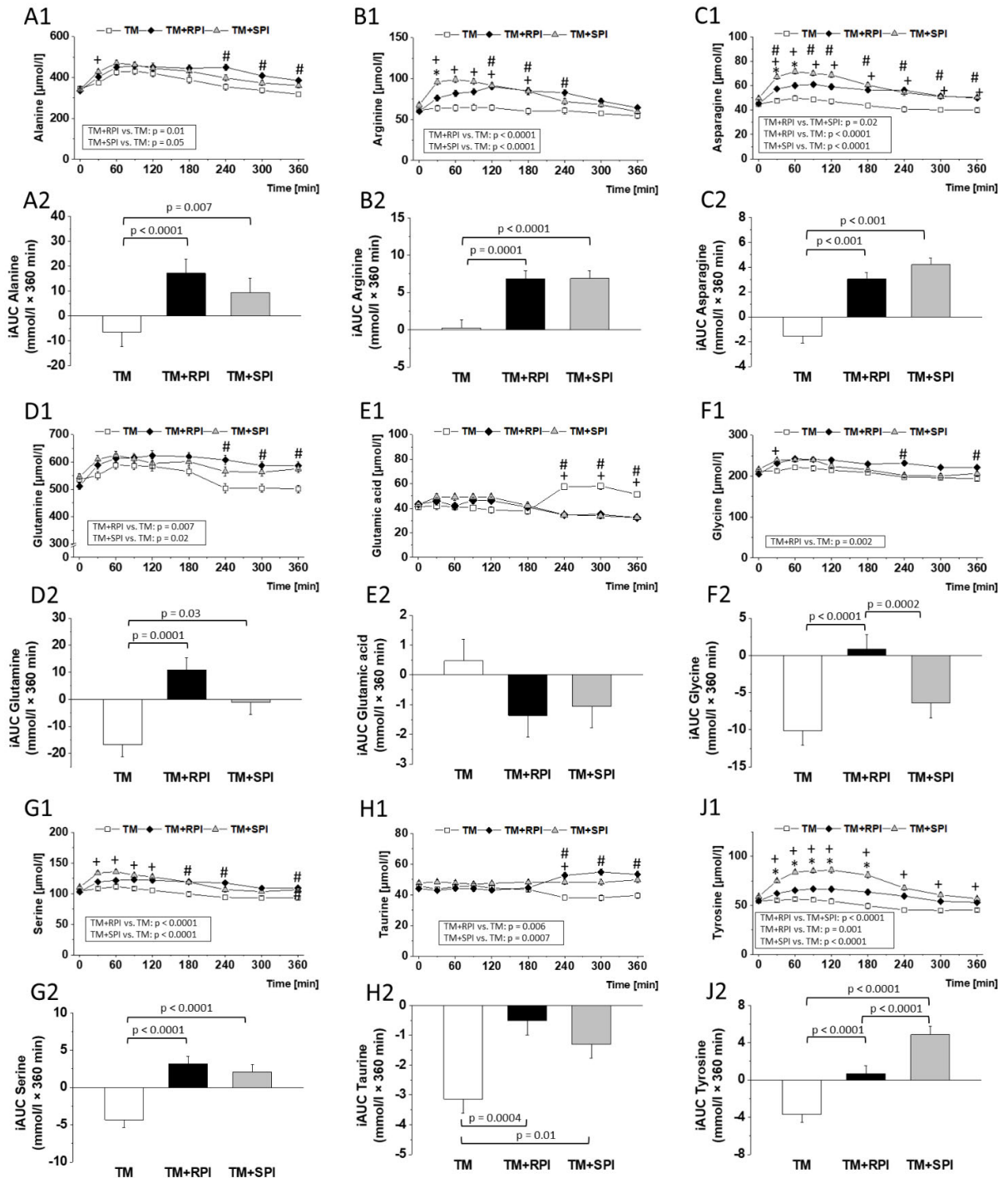


Figure S3 Postprandial response of the test meal (TM) with either no additional protein as reference (□), 28 g rapeseed protein isolate (RPI) (◆) or 28 g soy protein isolate (SPI) (▲) with regard to plasma levels and the incremental area under the curve (iAUC) of (A1 + 2) alanine, (B1 + 2) arginine, (C1 + 2) asparagine, (D1 + 2) glutamine, (E1 + 2) glutamic acid, (F1 + 2) glycine, (G1 + 2) serine, (H1 + 2) taurine and (J1 + 2) tyrosine. Differences in amino acid concentrations after the ingestion of the three test meals over 6 h were evaluated with a mixed model to test the effects of treatment, time, and their interaction (treatment × time) on each parameter. The value at baseline (before treatment) was considered a covariate. The iAUC was calculated for each subject and treatment using the trapezoidal rule. The mixed-models procedure (PROC MIXED) was used for all traits. For iAUC, treatment, sex, sequence

and period were set as fixed effects, and subject was included as a random effect. All p values were adjusted according to the Tukey-Kramer multiple group comparison procedure. For time point analysis, the paired t test was applied. Significance was accepted as $p < 0.05$. Data are presented as LSMs \pm SEs (n = 19); # $p < 0.05$ TM vs. TM+RPI; + $p < 0.05$ TM vs. TM+SPI; * $p < 0.05$ TM+RPI vs. TM+SPI.

Table S1. Baseline amino acid concentrations of the study participants

Amino acid [$\mu\text{mol/l}$]	
Alanine	386 \pm 14.9 (315; 557)
Arginine	61 \pm 4.6 (26; 100)
Asparagine	51 \pm 1.8 (35; 68)
Glutamine	602 \pm 22.5 (395; 766)
Glutamic acid	44 \pm 4.1 (22; 96)
Glycine	237 \pm 15.1 (131; 403)
Histidine	91 \pm 3.6 (73; 130)
Isoleucine	62 \pm 3.0 (40; 92)
Leucine	126 \pm 6.0 (79; 184)
Lysine	168 \pm 6.3 (114; 233)
Methionine	26 \pm 0.9 (20; 33)
Phenylalanine	60 \pm 1.6 (49; 74)
Serine	115 \pm 4.876; 155)
Taurine	54 \pm 2.5 (33;75)
Threonine	138 \pm 9.1 (77; 231)
Tryptophan	58 \pm 1.9 (41; 76)
Tyrosine	60 \pm 3.1 (36;81)
Valine	231 \pm 8.4 (183; 319)

Values are given as mean \pm SEM (min, max).

Table S2 iAUC and confidence intervals for plasma parameters after consumption of the three test meals

iAUC	TM	95% CI	TM+RPI	95% CI	TM+SPI	95% CI
Glucose [mmol/l × 180 min]	103	59.2; 147	52.0[†]	8.03; 96.0	79.7	35.7; 123
Insulin [IU/l × 180 min]	4.88	3.93; 5.83	5.42	4.47; 6.39	6.42*	5.47; 7.37
Triglycerides [mmol/l × 360 min]	-25.8	-48.7; -2.85	6.00*	-16.9; 28.9	-0.13*	-23.0; 22.8
Cholesterol [mmol/l × 360 min]	-241	-280; -203	-214	-252; -175	-193	-231; -155
Urea [mmol/l × 360 min]	-168	-230; -107	132*	70.2; 193	154*	92.9; 215
Phosphate [mmol/l × 360 min]	-62.2	-82.8; -41.7	-65.6	-86.1; -45.1	-51.7	-72.2; -31.2
PTH [ng/ml × 360 min]	-1.72	-3.80; 0.37	-1.16	-3.25; 0.92	-0.07*	-2.15; 2.02
FGF23 [ng/ml × 360 min]	-2.13	-2.94; -1.33	-1.76	-2.56; -0.96	-1.82	-2.63; -1.02
Calcium [mmol/l × 360 min]	-88.3	-120; -57.0	-94.8	-126; -63.5	-78.5	-110; -47.3
Zinc [mg/l × 360 min]	-71.8	-76.8; -23.0	-74.3	-85.4; -2.0	-58.5	-84.6; -32.4
Copper [mg/l × 360 min]	-31.9	2.49; 66.0	-34.2	-63.8; -0.12	-4.11	-27.6; 35.9
IL-6 [ng/ml × 360 min]	1.20	0.54; 1.96	1.32	0.61; 2.15	2.20	0.58; 2.05

Values are LSMs, n = 19; * Different from TM, p < 0.05; † p = 0.06;

The incremental area under the curve (iAUC) was calculated for each subject and treatment using the trapezoidal rule. The mixed-models procedure (PROC MIXED) was used for all traits. For the iAUC treatment, sex, sequence and period were set as fixed effects, and subject was included as a random effect. All p values were adjusted according to the Tukey-Kramer multiple group comparison procedure.

Table S3 iAUCs and confidence intervals of plasma amino acids after the consumption of the three test meals

iAUC	TM	95% CI	TM+RPI	95% CI	TM+SPI	95% CI
Alanine	-6.08	-18.5; 5.33	17.9*	5.27; 29.1	10.2*	-2.50; 21.3
Arginine	0.31	-1.85; 2.36	7.08*	4.77; 8.97	7.11*	4.80; 9.00
Asparagine	-1.59	-2.63; -0.53	2.99*	1.97; 4.11	4.21*	3.15; 5.25
Glutamine	-17.1	-25.6; -7.90	10.6*	2.10; 19.8	-1.52*	-10.0; 7.66
Glutamic acid	0.52	-0.99; 1.94	-1.30	-2.86; 0.13	-1.06	-2.53; 0.40
Glycine	-9.99	-13.3; -6.62	0.88*°	-1.01; 5.86	-6.36	-9.80; -3.09
Histidine	-2.34	-4.52; -0.15	2.88*°	0.70; 5.05	-2.09	-4.27; 0.09
Isoleucine	-2.41	-4.34; -0.48	9.97*	8.05; 11.9	12.1*	10.1; 14.0
Leucine	-6.98	-9.75; -4.22	10.7*	7.89; 13.4	10.3*	7.50; 13.0
Lysine	-13.8	-17.0; -10.7	0.84*	-2.40; 4.07	-0.51*	-3.66; 2.64
Methionine	-1.79	-2.35; -1.23	1.61*°	0.90; 2.31	-0.69*	-1.31; -0.06
Phenylalanine	0.09	-1.39; 1.56	5.56*	4.09; 7.03	6.68*	5.21; 8.15
Serine	-4.28	-6.43; -2.26	3.09*	1.08; 5.24	2.03*	0.01; 4.18
Taurine	-3.14	-4.09; -2.20	-0.63*	-1.46; 0.43	-1.41*	-2.25; -0.36
Threonine	-7.71	-10.0; -5.22	4.65*°	3.24; 8.17	0.81*	-1.60; 3.18
Tryptophan	-3.85	-4.99; -2.72	1.44*°	0.30; 2.57	0.06*	-1.08; 1.19
Tyrosine	-3.54	-5.43; -1.94	0.83*°	-1.08; 2.46	4.78*	3.10; 6.63
Valine	-12.7	-16.8; -8.54	16.3*	12.1; 20.4	12.9*	8.78; 17.0

Values are LSMs, n = 19; * Different from TM, p < 0.05; ° Different from TM+SPI, p < 0.05

The incremental area under the curve (iAUC) was calculated for each subject and treatment using the trapezoidal rule. The mixed-models procedure (PROC MIXED) was used for all traits. For iAUC treatment, sex, sequence and period were set as fixed effects, and subject was included as a random effect. All p values were adjusted according to the Tukey-Kramer multiple group comparison procedure.

CI, confidence interval