

Supplemental Table 2. Spearman correlations between BAP, TRAP5b, PTH, protein, calcium and vitamin D intakes and amino acids at the endpoint of the study among healthy working-aged men that consumed diets that differed in the proportions of red meat and legumes for six weeks (all data combined, n=99-102). The meat group consumed 760 g of boneless and cooked red and processed meat per week corresponding 25% of the total protein intake. The legume group consumed legume-based products corresponding 20% of the total protein intake and 200 g of red and processed meat per week corresponding 5% of total protein intake.

		BAP (U/L)	TRAP5b (U/L)	PTH (ng/L)	Protein intake (g/d)	Calcium intake (mg/d)	Vitamin D intake (µg/d)	Methionin e intake (mg/kg/d)	Cysteine intake (mg/kg/d)	Threonine intake (mg/kg/d)	Alanine intake (mg/kg/d)	Asn/Asp intake (mg/kg/d)	Gln/Glu intake (mg/kg/d)	Glycine intake (mg/kg/d)	Histidine intake (mg/kg/d)	Isoleucine intake (mg/kg/d)	Leucine intake (mg/kg/d)	Lysine intake (mg/kg/d)	Phe intake (mg/kg/d)	Proline intake (mg/kg/d)	Serine intake (mg/kg/d)	Valine intake (mg/kg/d)	Tryptopha n intake (mg/kg/d)	Tyrosine intake (mg/kg/d)	Arginine intake (mg/kg/d)	
BAP	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TRAP5b	r	.390**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PTH	r	0.190	-0.010	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.056	0.919	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Protein	r	0.187	0.178	-0.012	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.063	0.079	0.909	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	r	-0.074	0.038	-0.079	.585**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.469	0.710	0.436	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Vitamin D	r	-0.043	0.067	-0.070	.333**	.444**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.676	0.510	0.491	0.001	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Methionin e	r	-0.011	0.070	-0.116	.761**	.424**	.276**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.914	0.493	0.253	0.000	0.000	0.006	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cysteine	r	0.095	0.186	-.250*	.703**	.290**	.248*	.855**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.350	0.066	0.013	0.000	0.004	0.013	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Threonine	r	0.022	0.153	-0.194	.765**	.435**	.265**	.879**	.875**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.832	0.131	0.054	0.000	0.000	0.008	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Alanine	r	0.023	0.109	-0.162	.752**	.292**	.234*	.930**	.913**	.949**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.825	0.283	0.108	0.000	0.003	0.020	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Asn/Asp	r	0.043	0.176	-0.182	.751**	.430**	.245*	.768**	.819**	.962**	.887**	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.673	0.082	0.072	0.000	0.000	0.015	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gln/Glu	r	0.054	.215*	-.260**	.667**	.505**	.198*	.730**	.820**	.909**	.804**	.897**	.	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.597	0.032	0.009	0.000	0.000	0.049	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Glycine	r	0.091	0.138	-0.149	.713**	.200*	0.173	.867**	.903**	.908**	.974**	.866**	.776**	.	.	.	.	.	.	.	.	.	.	.	.
	P	0.370	0.172	0.141	0.000	0.047	0.086	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.	.
Histidine	r	-0.052	0.076	-0.195	.718**	.399**	.244*	.961**	.859**	.915**	.946**	.820**	.791**	.886**	.	.	.	.	.	.	.	.	.	.	.
	P	0.611	0.457	0.053	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.	.
Isoleucine	r	0.031	0.165	-.198*	.779**	.514**	.256*	.871**	.857**	.987**	.923**	.956**	.931**	.880**	.904**	.	.	.	.	.	.	.	.	.	.
	P	0.762	0.102	0.050	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.	.
Leucine	r	0.020	0.176	-.199*	.760**	.556**	.268**	.848**	.837**	.975**	.896**	.950**	.944**	.851**	.888**	.993**	.	.	.	.	.	.	.	.	.
	P	0.844	0.081	0.048	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.	.
Lysine	r	-0.043	0.068	-0.169	.764**	.458**	.260**	.931**	.821**	.959**	.954**	.898**	.830**	.898**	.954**	.954**	.943**	.	.	.	.	.	.	.	.
	P	0.673	0.505	0.095	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.	.
Phe	r	0.066	.219*	-.212*	.724**	.521**	.262**	.758**	.821**	.954**	.847**	.965**	.959**	.818**	.813**	.970**	.978**	.878**	.	.	.	.	.	.	.
	P	0.517	0.030	0.035	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.	.
Proline	r	0.025	0.179	-.240*	.628**	.624**	.235*	.699**	.726**	.834**	.707**	.814**	.953**	.660**	.743**	.877**	.906**	.781**	.913**	.	.	.	.	.	.
	P	0.804	0.076	0.017	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.	.
Serine	r	0.004	0.163	-0.155	.652**	.405**	.406**	.698**	.718**	.827**	.753**	.804**	.765**	.692**	.739**	.808**	.809**	.756**	.821**	.714**	.	.	.	.	.
	P	0.970	0.106	0.126	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.	.
Valine	r	0.037	0.176	-.210*	.771**	.551**	.263**	.858**	.856**	.976**	.902**	.949**	.943**	.855**	.890**	.994**	.996**	.938**	.976**	.905**	.806**	.	.	.	.
	P	0.719	0.081	0.037	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.	.
Tryptopha n	r	0.005	0.126	-.202*	.764**	.499**	.277**	.875**	.881**	.937**	.886**	.878**	.890**	.822**	.888**	.944**	.932**	.890**	.904**	.841**	.788**	.948**	.	.	.	
	P	0.964	0.215	0.045	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.	.
Tyrosine	r	0.030	0.166	-0.176	.764**	.612**	.286**	.843**	.795**	.951**	.857**	.926**	.923**	.802**	.866**	.978**	.987**	.924**	.963**	.913**	.795**	.985**	.921**	.	.	
	P	0.771	0.100	0.081	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	.	.
Arginine	r	0.105	.218*	-0.197	.706**	.342**	.201*	.695**	.796**	.915**	.851**	.958**	.869**	.862**	.752**	.908**	.898**	.843**	.933**	.767**	.741**	.895**	.821**	.863**	.	
	P	0.303	0.030	0.051	0.000	0.001	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	

Amino acid results shown for mg/kg body weight/day. Asn/Asp, asparagine/aspartic acid. BAP, bone-specific alkaline phosphatase. Gln/Glu, glutamine/glutamic acid. Phe, phenylalanine. PTH, parathyroid hormone. Trap5b, tartrate-resistant acid phosphatase 5b.

** , Correlation is significant at the 0.01 level (2-tailed).

* , Correlation is significant at the 0.05 level (2-tailed).