

Supplementary information

Table S1: Gender and age of the 19 donors who donated their fingerprints in this study.

Donor	Gender	Age
1	F	21
2	F	20
3	F	26
4	M	27
5	F	21
6	F	25
7	F	22
8	M	28
9	F	28
10	M	66
11	M	32
12	M	25
13	M	21
14	M	45
15	M	42
16	M	52
17	F	20
18	F	42
19	F	21

Table S2: MS/MS conditions (MicroMass Quattro Premier XE) for multiple reaction monitoring in ESI+.

Compound	Parent ion (m/z)	Daughter ion (m/z)	Dwell time [s]	Cone voltage [V]	Collision energy [eV]
Cystine	240.90	119.70	0.040	10.00	18.00
Cystine	240.90	151.90	0.040	16.00	10.00
Cystine-D6	247.10	155.00	0.040	16.00	10.00
Ornithine	133.00	43.20	0.040	12.00	26.00
Ornithine	133.00	70.10	0.040	12.00	16.00
Ornithine	133.00	115.90	0.040	12.00	10.00
Ornithine-D6	139.20	76.20	0.040	12.00	14.00
Lysine	147.00	56.10	0.040	14.00	30.00
Lysine	147.00	84.00	0.040	14.00	14.00
Lysine	147.00	130.00	0.040	14.00	8.00
Lysine-D4	151.10	88.00	0.040	14.00	14.00
Arginine	175.01	115.90	0.040	20.00	14.00
Arginine	175.01	130.00	0.040	20.00	14.00
Arginine	175.01	157.90	0.040	20.00	12.00
Arginine-D7 15N4	186.00	78.00	0.040	30.00	22.00
Aspartic acid	134.00	74.00	0.040	12.00	12.00
Aspartic acid	134.00	88.00	0.040	12.00	10.00
Aspartic acid	134.00	116.00	0.040	12.00	8.00
Aspartic acid-D3	137.00	75.00	0.040	14.00	14.00
Histidine	156.00	82.90	0.040	16.00	20.00
Histidine	156.00	93.00	0.040	16.00	24.00
Histidine	156.00	110.00	0.040	16.00	12.00
Histidine-D3	159.00	113.00	0.040	16.00	12.00
Glutamic acid	148.00	83.90	0.040	20.00	16.00

Glutamic acid	148.00	101.90	0.040	20.00	12.00
Glutamic acid	148.00	129.90	0.040	20.00	8.00
Glutamic acid-D5	153.00	88.20	0.040	16.00	18.00
Asparagine	133.00	74.00	0.040	14.00	14.00
Asparagine	133.00	87.00	0.040	14.00	10.00
Asparagine	133.00	116.00	0.040	14.00	12.00
Asparagine-D3	135.90	90.00	0.040	14.00	10.00
Serine	105.80	60.00	0.040	20.00	10.00
Serine	105.80	70.00	0.040	20.00	12.00
Serine	105.80	87.90	0.040	20.00	12.00
Serine-D3	109.10	91.00	0.040	20.00	12.00
Threonine	120.00	56.20	0.040	16.00	14.00
Threonine	120.00	74.10	0.040	16.00	10.00
Threonine	120.00	102.00	0.040	16.00	8.00
Threonine-D2	122.10	76.10	0.040	16.00	10.00
Hydroxyproline	132.00	41.30	0.040	20.00	22.00
Hydroxyproline	132.00	68.00	0.040	20.00	18.00
Hydroxyproline	132.00	86.00	0.040	20.00	14.00
Hydroxyproline-D3	135.10	71.10	0.040	20.00	18.00
Alanine	90.00	44.20	0.040	16.00	8.00
Alanine	90.00	62.10	0.040	16.00	4.00
Alanine	90.00	72.30	0.040	16.00	16.00
Alanine-D4 13C3 15N 1	98.00	51.00	0.040	18.00	10.00
Tyrosine	182.00	91.00	0.040	14.00	26.00
Tyrosine	182.00	136.00	0.040	14.00	12.00
Tyrosine	182.00	165.00	0.040	14.00	10.00
Tyrosine-D2	184.00	167.00	0.040	14.00	10.00
Glutamine	147.00	56.20	0.040	14.00	26.00
Glutamine	147.00	84.00	0.040	14.00	16.00
Glutamine	147.00	129.90	0.040	14.00	10.00
Glutamine-D5	152.10	135.00	0.040	14.00	10.00
Valine	118.00	55.20	0.040	14.00	20.00
Valine	118.00	72.00	0.040	14.00	10.00
Valine-D8	126.00	80.00	0.040	16.00	10.00
Proline	116.00	43.00	0.040	22.00	22.00
Proline	116.00	70.10	0.040	22.00	12.00
Proline-13C5 15N1	121.90	75.00	0.040	22.00	12.00
Methionine	150.00	56.20	0.040	16.00	16.00
Methionine	150.00	104.00	0.040	16.00	10.00
Methionine	150.00	133.00	0.040	16.00	10.00
Methionine-D3	153.10	107.10	0.040	16.00	10.00
Tryptophan	205.10	118.00	0.040	14.00	28.00
Tryptophan	205.10	145.90	0.040	14.00	14.00
Tryptophan	205.10	188.10	0.040	14.00	8.00
Tryptophan-D5	210.20	150.10	0.040	18.00	18.00
Isoleucine	132.00	44.30	0.040	16.00	22.00
Isoleucine	132.00	69.10	0.040	16.00	16.00
Isoleucine	132.00	86.10	0.040	16.00	10.00
Isoleucine-13C6 15N1	139.00	92.00	0.040	18.00	10.00
Phenylalanine	166.00	77.00	0.040	14.00	34.00
Phenylalanine	166.00	103.00	0.040	14.00	28.00
Phenylalanine	166.00	120.00	0.040	14.00	14.00

Phenylalanine-D5	171.10	125.00	0.040	14.00	14.00
Leucine	132.00	44.00	0.040	16.00	16.00
Leucine	132.00	86.00	0.040	16.00	10.00
Leucine-D10	142.20	96.00	0.040	16.00	10.00

Table S3: Calculated extraction efficiency of the 21 amino acids, based on a positive control, determined by UPLC-TOF-MS.

Compound	Extraction efficiency (%)
L-alanine	105.0
L-arginine	97.3
L-asparagine	104.9
L-aspartic acid	109.3
L-cystine	117.7
L-glutamic acid	112.9
L-glutamine	110.7
L-histidine	112.2
hydroxy-L-proline	110.0
L-iso-/leucine	113.9
L-lysine	98.6
L-methionine	89.1
L-ornithine	102.5
L-phenylalanine	113.0
L-proline	110.5
L-serine	111.0
L-threonine	111.7
L-tryptophan	109.6
L-tyrosine	96.0
L-valine	109.5