

Supplementary data

Table S1

Metabolite VIP	VIP value	Contribution score	p-value	Fold Change	Chemical classes
PE(20:4(5Z,8Z,11Z,14Z)/18:1(11Z))	1.524	2.07	1.42 10 ⁻³	3.428	Phospholipids
PE(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/18:1(11Z))	1.463	1.73	3.24 10 ⁻³	3.738	Phospholipids
Indoleacetic acid	1.450	2.20	1.77 10 ⁻⁴	2.569	Aromatic compounds-Amines
Hippuric acid	1.435	-2.44	3.50 10 ⁻⁶	0.056	Amino acids-Derivatives
PE(16:0/20:4(5Z,8Z,11Z,14Z))	1.323	1.93	3.91 10 ⁻⁴	2.151	Phospholipids
Serotonin	1.317	-2.15	8.87 10 ⁻⁶	0.476	Amino acids-Derivatives
Cholic acid	1.301	2.01	3.19 10 ⁻⁵	20.144	Lipids: Fatty acids-Steroids
PC(14:0/16:0)	1.270	1.98	3.45 10 ⁻⁵	1.566	Phospholipids
Guanidoacetic acid	1.256	1.87	9.68 10 ⁻⁵	2.290	Amino acids-Derivatives
N-Acetylserotonin	1.255	-1.94	4.57 10 ⁻⁵	0.377	Amino acids-Derivatives
L-Acetylcarnitine	1.236	1.89	6.81 10 ⁻⁵	1.531	Lipids: Fatty acids-Steroids
O-Acetyl-L-carnitine	1.233	1.88	7.14 10 ⁻⁵		Lipids: Fatty acids-Steroids
Glycerophosphocholine	1.229	-1.75	2.54 10 ⁻⁴	0.425	Lipids: Fatty acids-Steroids
PC(15:0/20:2(11Z,14Z))	1.223	1.82	1.18 10 ⁻⁴	1.521	Phospholipids
N-acetyltryptophan	1.218	1.79	1.52 10 ⁻⁴	2.990	Amino acids-Derivatives
4-Trimethylammoniobutanoic acid	1.213	1.82	1.15 10 ⁻⁴	1.553	Lipids: Fatty acids-Steroids
Trigonelline	1.203	-1.79	1.39 10 ⁻⁴	0.425	Aromatic compounds-Amines
N-Methyltryptamine	1.192	-1.61	1.45 10 ⁻³	0.323	Aromatic compounds-Amines
Tetradecanoylcarnitine	1.176	1.68	2.89 10 ⁻⁴	2.052	Lipids: Fatty acids-Steroids
Cytosine	1.164	-1.68	3.10 10 ⁻⁴	0.601	Nucleotides-Nucleosides-Derivatives
Nicotinic acid	1.152	1.62	6.80 10 ⁻⁴	1.659	Aromatic compounds-Amines
L-Threonine	1.149	-0.34	>0.05	0.964	Amino acids-Derivatives
Ketoleucine	1.148	-1.60	7.24 10 ⁻⁴	0.474	Amino acids-Derivatives
PC(15:0/16:0)	1.138	1.57	5.84 10 ⁻⁴	1.441	Phospholipids
Cholesteryl acetate	1.137	1.56	1.10 10 ⁻³	1.929	Lipids: Fatty acids-Steroids
L-Lysine	1.136	-1.55	6.95 10 ⁻⁴	0.780	Amino acids-Derivatives
L-Valine	1.128	1.24	9.30 10 ⁻³	1.411	Amino acids-Derivatives
Biotin	1.099	1.49	8.85 10 ⁻⁴	2.284	Vitamins-Cofactors-Hormones

Uridine	1.084	-1.39	$1.82 \cdot 10^{-3}$	0.671	Nucleotides-Nucleosides-Derivatives
Thiamine monophosphate	1.084	1.42	$2.17 \cdot 10^{-3}$	1.809	Vitamins-Cofactors-Hormones
PC(O-18:2(9Z,12Z)/2:0)	1.081	-1.45	$1.16 \cdot 10^{-3}$	0.843	Phospholipids
Oxoglutaric acid	1.075	1.39	$1.63 \cdot 10^{-3}$	1.702	Organic acids
LysoPC(20:2(11Z,14Z))	1.070	-1.42	$1.37 \cdot 10^{-3}$	0.856	Phospholipids
L-Serine	1.069	0.02	>0.05	1.003	Amino acids-Derivatives
D-Glyceraldehyde-3-phosphate	1.066	-0.14	>0.05		Others
3-(2-Hydroxyphenyl)propanoic acid	1.059	1.39	$1.84 \cdot 10^{-3}$	1.821	Aromatic compounds-Amines
Indole-3-methyl acetate	1.057	-1.39	$1.72 \cdot 10^{-3}$	0.421	Aromatic compounds-Amines
L-Pipecolic acid	1.056	-1.38	$1.86 \cdot 10^{-3}$	0.748	Amino acids-Derivatives
Deoxycytidine	1.052	-1.37	$1.96 \cdot 10^{-3}$	0.671	Nucleotides-Nucleosides-Derivatives
3-Methylhistidine	1.045	-1.35	$2.19 \cdot 10^{-3}$	0.768	Amino acids-Derivatives
N-Alpha-acetyllysine	1.038	-1.34	$2.13 \cdot 10^{-3}$	0.794	Amino acids-Derivatives
Glycocholic acid	1.034	1.22	$4.92 \cdot 10^{-3}$	21.090	Lipids: Fatty acids-Steroids
LysoPC(18:0)	1.016	-1.22	$4.35 \cdot 10^{-3}$	0.857	Phospholipids
Platelet activating factor	1.016	-1.22	$4.50 \cdot 10^{-3}$	0.857	Phospholipids
L-Arginine	1.015	-1.14	$7.97 \cdot 10^{-3}$	0.729	Amino acids-Derivatives
Indoxyl sulfate	1.011	-1.24	$3.61 \cdot 10^{-3}$	0.539	Aromatic compounds-Amines
L-Malic acid	1.008	1.17	$5.88 \cdot 10^{-3}$	1.634	Organic acids
PE(O-16:1(1Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	1.006	1.10	$1.57 \cdot 10^{-2}$	1.720	Phospholipids
Citramalic acid	0.997	1.23	$3.74 \cdot 10^{-3}$	1.355	Organic acids
Propionylcarnitine	0.995	1.11	$8.34 \cdot 10^{-3}$	1.520	Lipids: Fatty acids-Steroids
PC(18:1(9Z)/18:1(9Z))	0.995	1.22	$3.75 \cdot 10^{-3}$	1.289	Phospholipids
LysoPC(16:0)	0.979	-1.17	$5.30 \cdot 10^{-3}$	0.910	Phospholipids
Stearic acid	0.977	-1.08	$9.25 \cdot 10^{-3}$	0.707	Lipids: Fatty acids-Steroids
Ornithine	0.964	1.03	$1.25 \cdot 10^{-2}$	1.479	Amino acids-Derivatives
Corticosterone	0.960	0.72	>0.05	1.488	Lipids: Fatty acids-Steroids
Uracil	0.958	-1.09	$7.39 \cdot 10^{-3}$	0.706	Nucleotides-Nucleosides-Derivatives
LysoPE(0:0/18:1(11Z))	0.929	0.86	$3.41 \cdot 10^{-2}$	1.434	Phospholipids
PC(16:0/16:0)	0.905	1.00	$1.05 \cdot 10^{-2}$	1.276	Phospholipids
D-Glucose	0.896	-0.77	>0.05	0.806	Sugar
L-Asparagine	0.888	0.96	$1.26 \cdot 10^{-2}$	1.288	Amino acids-Derivatives
PC(20:4(5Z,8Z,11Z,14Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.874	-0.86	$2.40 \cdot 10^{-2}$	0.648	Phospholipids
Glucosamine 6-phosphate	0.868	-0.82	$3.09 \cdot 10^{-2}$	0.738	Sugar

L-Glutamine	0.856	0.89	$1.96 \cdot 10^{-2}$	1.186	Amino acids-Derivatives
L-Histidine	0.854	0.88	$1.89 \cdot 10^{-2}$	1.164	Amino acids-Derivatives
Dodecanoylcarnitine	0.848	0.89	$1.74 \cdot 10^{-2}$	1.969	Lipids: Fatty acids-Steroids
3-Methylhistamine	0.842	-0.81	$2.77 \cdot 10^{-2}$	0.731	Amino acids-Derivatives
N-Acetyl-L-phenylalanine	0.837	0.78	$3.28 \cdot 10^{-2}$	1.412	Amino acids-Derivatives
Gluconic acid	0.827	-0.81	$3.22 \cdot 10^{-2}$	0.575	Sugar
Alpha-Tocopherol	0.826	0.84	$2.49 \cdot 10^{-2}$	1.203	Lipids: Fatty acids-Steroids
LysoPC(16:1(9Z))	0.826	-0.82	$2.75 \cdot 10^{-2}$	0.839	Phospholipids
Fumaric acid	0.822	0.71	$4.96 \cdot 10^{-2}$	1.424	Organic acids
PC(O-14:1/2:0)	0.813	-0.78	$3.77 \cdot 10^{-2}$	0.828	Phospholipids
Palmitic acid	0.800	-0.74	$3.56 \cdot 10^{-2}$	0.687	Lipids: Fatty acids-Steroids
PC(O-14:0/2:0)	0.791	-0.69	$4.68 \cdot 10^{-2}$	0.908	Phospholipids
3-Hydroxybutyric acid	0.791	0.77	$2.84 \cdot 10^{-2}$	1.379	Organic acids
PC(O-16:1(11Z)/2:0)	0.768	-0.70	$3.89 \cdot 10^{-2}$	0.874	Phospholipids
Azelaic acid	0.764	-0.70	$4.63 \cdot 10^{-2}$	0.756	Lipids: Fatty acids-Steroids
Uric acid	0.761	-0.72	$3.60 \cdot 10^{-2}$	0.759	Nucleotides-Nucleosides-Derivatives
Isocitric acid	0.756	0.70	$4.12 \cdot 10^{-2}$	1.196	Organic acids
LysoPC(20:0)	0.753	-0.52	$1.49 \cdot 10^{-1}$	0.694	Phospholipids
Citric acid	0.748	0.69	$4.38 \cdot 10^{-2}$	1.187	Organic acids
Methylglutaric acid	0.742	-0.66	$4.79 \cdot 10^{-2}$	0.835	Lipids: Fatty acids-Steroids
Phosphorylcholine	0.738	-0.67	$4.35 \cdot 10^{-2}$	0.679	Others
PC(O-18:4/2:0)	0.724	0.64	$4.87 \cdot 10^{-2}$	1.140	Phospholipids
LysoPC(20:3(5Z,8Z,11Z))	0.706	-0.62	$5.48 \cdot 10^{-2}$	0.837	Phospholipids
Linoleic acid	0.673	-0.43	>0.05	0.778	Lipids: Fatty acids-Steroids
Orotic acid	0.662	-0.52	>0.05	0.753	Nucleotides-Nucleosides-Derivatives
PC(15:0/18:2(9Z,12Z))	0.654	0.50	$9.01 \cdot 10^{-2}$	1.031	Phospholipids
trans-Ferulic acid	0.644	-0.39	>0.05	0.504	Others
L-Lactic acid	0.607	-0.45	>0.05	0.928	Organic acids
PC(15:0/20:1(11Z))	0.551	0.38	$1.45 \cdot 10^{-1}$	1.140	Phospholipids
Allantoin	0.532	-0.30	>0.05	0.885	Others
PC(14:0/20:1(11Z))	0.531	0.22	$3.86 \cdot 10^{-1}$	1.105	Phospholipids
Malonate	0.495	0.30	>0.05	1.191	Organic acids
Urocanic acid	0.447	0.03	>0.05	1.037	Amino acids-Derivatives
L-Methionine	0.434	-0.22	>0.05	0.949	Amino acids-Derivatives

Table S2

Metabolites VIP	VIP value	Contribution Score	p-value	Fold Change	Chemical classes
PC(O-14:0/2:0)	1.798	-2.785	$3.99 \cdot 10^{-4}$	0.852	Phospholipids
Cytidine	1.596	-2.154	$9.09 \cdot 10^{-4}$	0.803	Nucleotides- Nucleosides-Derivatives
Cytosine	1.455	-1.975	$3.18 \cdot 10^{-3}$	0.754	Nucleotides- Nucleosides-Derivatives
Guanosine	1.380	-1.546	$2.63 \cdot 10^{-3}$	0.602	Nucleotides- Nucleosides-Derivatives
Uric acid	1.377	-1.509	$4.43 \cdot 10^{-3}$	0.777	Nucleotides- Nucleosides-Derivatives
D-Glucose	1.353	1.687	$4.11 \cdot 10^{-2}$	1.329	Sugar
Platelet activating factor	1.343	1.531	>0.1	1.303	Lipids: Fatty acids- Steroids
Caprylic acid	1.297	1.662	$6.04 \cdot 10^{-3}$	2.065	Lipids: Fatty acids- Steroids
L-Lactic acid	1.289	1.459	$1.19 \cdot 10^{-2}$	1.158	Organic acids
Uracil	1.285	-1.366	$6.32 \cdot 10^{-3}$	0.659	Nucleotides- Nucleosides-Derivatives
Propionylcarnitine	1.273	1.373	$9.18 \cdot 10^{-3}$	1.498	Lipids: Fatty acids- Steroids
PC(16:1(9Z)/22:2(13Z,16Z))	1.254	1.250	>0.1	1.095	Phospholipids
Biotin	1.243	-1.488	$6.45 \cdot 10^{-3}$	0.576	Vitamins-Cofactors- Hormones
Uridine	1.234	-1.189	$1.10 \cdot 10^{-2}$	0.662	Nucleotides- Nucleosides-Derivatives
Methylguanidine	1.221	1.193	$1.57 \cdot 10^{-2}$	1.399	Nucleotides- Nucleosides-Derivatives
3-Hydroxybenzoic acid	1.220	-1.223	$7.60 \cdot 10^{-3}$	0.682	Aromatic compounds- Amines
Guanine	1.199	-1.081	$3.33 \cdot 10^{-2}$	0.778	Nucleotides- Nucleosides-Derivatives
LysoPC(18:0)	1.183	1.130	>0.1	1.259	Phospholipids
Inosine	1.181	-1.050	$1.81 \cdot 10^{-2}$	0.768	Nucleotides- Nucleosides-Derivatives
L-Homoserine	1.164	1.352	>0.1	1.202	Amino acids-Derivatives
L-Aspartic acid	1.156	-0.991	$6.69 \cdot 10^{-2}$	0.555	Amino acids-Derivatives
PC(21:0)	1.136	0.892	>0.1	0.984	Phospholipids
Creatine	1.133	1.035	$1.56 \cdot 10^{-2}$	1.195	Amino acids-Derivatives
PC(18:1(9Z)/18:1(9Z))	1.123	1.024	>0.1	1.339	Phospholipids
Cortisol	1.118	1.060	$3.03 \cdot 10^{-2}$	1.557	Lipids: Fatty acids- Steroids
N-Acetylputrescine	1.114	1.373	$2.29 \cdot 10^{-2}$	1.275	Organic acids
Thiamine monophosphate	1.104	-0.904	$6.06 \cdot 10^{-2}$	0.747	Vitamins-Cofactors- Hormones

PC(O-18:2(9Z,12Z)/2:0)	1.095	-0.842	$7.36 \cdot 10^{-2}$	0.759	Phospholipids
L-Arginine	1.087	1.338	>0.1	1.163	Amino acids-Derivatives
4-Trimethylammoniobutanoic acid	1.067	-0.927	$4.71 \cdot 10^{-2}$	0.825	Lipids: Fatty acids-Steroids
L-Threonine	1.064	1.579	>0.1	1.190	Amino acids-Derivatives
Palmitic acid	1.042	-0.829	$1.91 \cdot 10^{-2}$	0.677	Lipids: Fatty acids-Steroids
Hippuric acid	1.035	-0.747	$3.29 \cdot 10^{-2}$	0.494	Amino acids-Derivatives
Ketoleucine	1.029	0.799	$7.47 \cdot 10^{-2}$	0.883	Amino acids-Derivatives
L-Dopa	1.011	1.360	$4.54 \cdot 10^{-2}$	1.273	Vitamins-Cofactors-Hormones
Valerolactone	1.007	-0.823	$3.27 \cdot 10^{-2}$	0.859	Others
PC(14:0/20:1(11Z))	1.005	0.682	>0.1	1.061	Phospholipids
PC(14:0/22:1(13Z))	1.000	0.760	>0.1	1.088	Phospholipids
Adenosine monophosphate	0.998	0.823	>0.1	2.181	Nucleotides-Nucleosides-Derivatives
Urocanic acid	0.991	-0.847	$4.35 \cdot 10^{-2}$	0.448	Amino acids-Derivatives
PC(18:1(11Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.985	-0.876	>0.1	0.443	Phospholipids
Succinic acid	0.967	-0.785	$7.45 \cdot 10^{-2}$	0.499	Organic acids
NEPSILON,NEPSILON,NEPSILON-TRIMET	0.956	0.574	>0.1	1.139	Others
LysoPC(18:2(9Z,12Z))	0.953	-0.628	>0.1	0.895	Phospholipids
N-Methyltryptamine	0.945	0.730	>0.1	1.270	Aromatic compounds-Amines
Vanillylmandelic acid	0.941	-0.721	$8.78 \cdot 10^{-2}$	0.376	Aromatic compounds-Amines
Pantothenic acid	0.927	-0.614	$5.47 \cdot 10^{-2}$	0.852	Vitamins-Cofactors-Hormones
Serotonin	0.913	0.475	>0.1	1.356	Amino acids-Derivatives
N-Acetylmethionine	0.911	-1.832	$3.96 \cdot 10^{-2}$	0.617	Amino acids-Derivatives
Picolinic acid	0.908	0.685	>0.1	0.818	Amino acids-Derivatives
SM(d18:1/18:0)	0.908	0.418	>0.1	1.204	Lipids: Fatty acids-Steroids
PC(O-16:1(11Z)/2:0)	0.894	0.671	$9.09 \cdot 10^{-2}$	1.193	Phospholipids
PC(16:0/22:5(4Z,7Z,10Z,13Z,16Z))	0.882	0.371	>0.1	0.989	Phospholipids
L-Serine	0.874	0.978	>0.1	1.190	Amino acids-Derivatives
Pyroglutamic acid	0.873	-0.552	$4.63 \cdot 10^{-2}$	0.845	Amino acids-Derivatives
LysoPC(16:0)	0.867	0.491	>0.1	1.112	Phospholipids
Glyceric acid	0.861	0.784	>0.1	1.043	Sugar
L-Methionine	0.855	0.726	>0.1	1.153	Amino acids-Derivatives
Gluconic acid	0.848	-0.663	$5.10 \cdot 10^{-2}$	0.743	Sugar
Tetradecanoylcarnitine	0.841	-0.581	>0.1	0.755	Lipids: Fatty acids-Steroids
PC(14:1(9Z)/22:2(13Z,16Z))	0.835	0.455	>0.1	0.907	Phospholipids

Caproic acid	0.832	-0.459	>0.1	0.887	Lipids: Fatty acids-Steroids
Diethanolamine	0.831	0.794	>0.1	1.266	Aromatic compounds-Amines
Citric acid	0.818	0.706	>0.1	1.928	Organic acids
Spermidine	0.801	0.648	>0.1	1.012	Aromatic compounds-Amines
Diaminopimelic acid	0.782	0.591	$8.81 \cdot 10^{-2}$	1.339	Amino acids-Derivatives
Menadione	0.773	0.516	>0.1	1.769	Vitamins-Cofactors-Hormones
Isocitric acid	0.748	0.607	>0.1	1.677	Organic acids
Indoleacetic acid	0.739	0.397	>0.1	1.049	Aromatic compounds-Amines
Orotic acid	0.736	-0.332	>0.1	0.739	Nucleotides-Nucleosides-Derivatives
Glucose 1-phosphate	0.733	0.683	>0.1	1.525	Sugar
1-Aminocyclopropanecarboxylic acid	0.722	1.183	>0.1	1.090	Amino acids-Derivatives
5-Hydroxylysine	0.721	2.195	>0.1	1.119	Amino acids-Derivatives
(2E,4E)-2,4-Hexadienoic acid	0.715	0.230	>0.1	1.053	Lipids: Fatty acids-Steroids
3-Aminoisobutanoic acid	0.701	0.527	>0.1	1.023	Amino acids-Derivatives
Glucose 6-phosphate	0.699	0.552	>0.1	2.734	Sugar
Malic acid	0.695	-0.229	>0.1	0.913	Organic acids
Galactitol	0.679	-0.257	>0.1	0.844	Sugar
trans-Cinnamate	0.673	0.743	>0.1	1.090	Aromatic compounds-Amines
Dethiobiotin	0.665	0.280	>0.1	1.175	Lipids: Fatty acids-Steroids
4-Acetamidobutanoic acid	0.652	-0.365	>0.1	0.694	Organic acids
Fumaric acid	0.646	-0.172	>0.1	0.914	Organic acids
Phosphocreatine	0.621	0.454	>0.1	2.010	Amino acids-Derivatives
Decanoylcarnitine	0.617	0.496	>0.1	1.151	Lipids: Fatty acids-Steroids
Riboflavin	0.556	-0.156	>0.1	0.787	Vitamins-Cofactors-Hormones
Deoxycholic acid	0.466	0.357	>0.1	1.076	Lipids: Fatty acids-Steroids
2-Hydroxypyridine	0.440	-0.646	>0.1	0.977	Nucleotides-Nucleosides-Derivatives
Taurine	0.392	0.313	>0.1	1.028	Organic acids

Table S3

Elements only in serum :		
	p-value	Fold Change
3-(2-Hydroxyphenyl)propanoic acid	$1.84 \cdot 10^{-3}$	1.821
3-Hydroxybutyric acid	$2.84 \cdot 10^{-2}$	1.379
3-Methylhistamine	$2.77 \cdot 10^{-2}$	0.731
3-Methylhistidine	$2.19 \cdot 10^{-3}$	0.768
Allantoin	>0.05	0.885
Alpha-Tocopherol	$2.49 \cdot 10^{-2}$	1.203
Azelaic acid	$4.63 \cdot 10^{-2}$	0.756
Cholesteryl acetate	$1.10 \cdot 10^{-3}$	1.929
Cholic acid	$3.19 \cdot 10^{-5}$	20.144
Citramalic acid	$3.74 \cdot 10^{-3}$	1.355
Corticosterone	>0.05	1.488
Deoxycytidine	$1.96 \cdot 10^{-3}$	0.671
D-Glyceraldehyde-3-phosphate	>0.05	
Dodecanoylcarnitine	$1.74 \cdot 10^{-2}$	1.969
Glucosamine 6-phosphate	$3.09 \cdot 10^{-2}$	0.738
Glycerophosphocholine	$2.54 \cdot 10^{-4}$	0.425
Glycocholic acid	$4.92 \cdot 10^{-3}$	21.090
Guanidoacetic acid	$9.68 \cdot 10^{-5}$	2.290
Indole-3-methyl acetate	$1.72 \cdot 10^{-3}$	0.421
Indoxyl sulfate	$3.61 \cdot 10^{-3}$	0.539
L-Acetylcarnitine	$6.81 \cdot 10^{-5}$	1.531
L-Asparagine	$1.26 \cdot 10^{-2}$	1.288
L-Glutamine	$1.96 \cdot 10^{-2}$	1.186
L-Histidine	$1.89 \cdot 10^{-2}$	1.164
Linoleic acid	>0.05	0.778
L-Lysine	$6.95 \cdot 10^{-4}$	0.780
L-Pipecolic acid	$1.86 \cdot 10^{-3}$	0.748
L-Valine	$9.30 \cdot 10^{-3}$	1.411
LysoPC(16:1(9Z))	$2.75 \cdot 10^{-2}$	0.839
LysoPC(20:0)	$1.49 \cdot 10^{-1}$	0.694
LysoPC(20:2(11Z,14Z))	$1.37 \cdot 10^{-3}$	0.856
LysoPC(20:3(5Z,8Z,11Z))	$5.48 \cdot 10^{-2}$	0.837
LysoPE(0:0/18:1(11Z))	$3.41 \cdot 10^{-2}$	1.434
Malonate	>0.05	1.191
Methylglutaric acid	$4.79 \cdot 10^{-2}$	0.835

N-Acetyl-L-phenylalanine	3.28 10 ⁻²	1.412
N-Acetylserotonin	4.57 10 ⁻⁵	0.377
N-acetyltryptophan	1.52 10 ⁻⁴	2.990
N-Alpha-acetyllysine	2.13 10 ⁻³	0.794
Nicotinic acid	6.80 10 ⁻⁴	1.659
O-Acetyl-L-carnitine	7.14 10 ⁻⁵	
Ornithine	1.25 10 ⁻²	1.479
Oxoglutaric acid	1.63 10 ⁻³	1.702
PC(14:0/16:0)	3.45 10 ⁻⁵	1.566
PC(15:0/16:0)	5.84 10 ⁻⁴	1.441
PC(15:0/18:2(9Z,12Z))	9.01 10 ⁻²	1.031
PC(15:0/20:1(11Z))	1.45 10 ⁻¹	1.140
PC(15:0/20:2(11Z,14Z))	1.18 10 ⁻⁴	1.521
PC(16:0/16:0)	1.05 10 ⁻²	1.276
PC(20:4(5Z,8Z,11Z,14Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	2.40 10 ⁻²	0.648
PC(O-14:1/2:0)	4.68 10 ⁻²	0.908
PC(O-18:4/2:0)	4.87 10 ⁻²	1.140
PE(16:0/20:4(5Z,8Z,11Z,14Z))	3.91 10 ⁻⁴	2.151
PE(20:4(5Z,8Z,11Z,14Z)/18:1(11Z))	1.42 10 ⁻³	3.428
PE(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/18:1(11Z))	3.24 10 ⁻³	3.738
PE(O-16:1(1Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	1.57 10 ⁻²	1.720
Phosphorylcholine	4.35 10 ⁻²	0.679
Stearic acid	9.25 10 ⁻³	0.707
trans-Ferulic acid	>0.05	0.504
Trigonelline	1.39 10 ⁻⁴	0.425

Elements only in soleus :		
	p-value	Fold change
(2E,4E)-2,4-Hexadienoic acid	>0.1	1.053
1-Aminocyclopropanecarboxylic acid	>0.1	1.090
2-Hydroxypyridine	>0.1	0.977
3-Aminoisobutanoic acid	>0.1	1.023
3-Hydroxybenzoic acid	7.60 10 ⁻³	0.682
4-Acetamidobutanoic acid	>0.1	0.694
5-Hydroxylysine	>0.1	1.119
Adenosine monophosphate	>0.1	2.181
Caproic acid	>0.1	0.887
Caprylic acid	6.04 10 ⁻³	2.065

Cortisol	3.03 10 ⁻²	1.557
Creatine	1.56 10 ⁻²	1.195
Cytidine	9.09 10 ⁻⁴	0.803
Decanoylcarnitine	>0.1	1.151
Deoxycholic acid	>0.1	1.076
Dethiobiotin	>0.1	1.175
Diaminopimelic acid	8.81 10 ⁻²	1.339
Diethanolamine	>0.1	1.266
Galactitol	>0.1	0.844
Glucose 1-phosphate	>0.1	1.525
Glucose 6-phosphate	>0.1	2.734
Glyceric acid	>0.1	1.043
Guanine	3.33 10 ⁻²	0.778
Guanosine	2.63 10 ⁻³	0.602
Inosine	1.81 10 ⁻²	0.768
L-Aspartic acid	6.69 10 ⁻²	0.555
L-Dopa	4.54 10 ⁻²	1.273
L-Homoserine	>0.1	1.202
LysoPC(18:2(9Z,12Z))	>0.1	0.895
Menadione	>0.1	1.769
Methylguanidine	1.57 10 ⁻²	1.399
N-Acetylmethionine	3.96 10 ⁻²	0.617
N-Acetylputrescine	2.29 10 ⁻²	1.275
NEPSILON,NEPSILON,NEPSILON-TRIMET	>0.1	1.139
Pantothenic acid	5.47 10 ⁻²	0.852
PC(14:0/22:1(13Z))	>0.1	1.088
PC(14:1(9Z)/22:2(13Z,16Z))	>0.1	0.907
PC(16:0/22:5(4Z,7Z,10Z,13Z,16Z))	>0.1	0.989
PC(16:1(9Z)/22:2(13Z,16Z))	>0.1	1.095
PC(18:1(11Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	>0.1	0.443
PC(21:0)	>0.1	0.984
Phosphocreatine	>0.1	2.010
Picolinic acid	>0.1	0.818
Pyroglutamic acid	4.63 10 ⁻²	0.845
Riboflavin	>0.1	0.787
SM(d18:1/18:0)	>0.1	1.204
Spermidine	>0.1	1.012
Succinic acid	7.45 10 ⁻²	0.499
Taurine	>0.1	1.028

trans-Cinnamate	>0.1	1.090
Valerolactone	$3.27 \cdot 10^{-2}$	0.859
Vanillylmandelic acid	$8.78 \cdot 10^{-2}$	0.376

Common elements in serum soleus :	Serum		Soleus	
	p-value	Fold Change	p-value	Fold Change
Biotin	$8.85 \cdot 10^{-4}$	2.284	$6.45 \cdot 10^{-3}$	0.576
4-Trimethylammoniobutanoic acid	$1.15 \cdot 10^{-4}$	1.553	$4.71 \cdot 10^{-2}$	0.825
Citric acid	$4.38 \cdot 10^{-2}$	1.187	>0.1	1.928
Cytosine	$3.10 \cdot 10^{-4}$	0.601	$3.18 \cdot 10^{-3}$	0.754
D-Glucose	>0.05	0.806	$4.11 \cdot 10^{-2}$	1.329
Fumaric acid	$4.96 \cdot 10^{-2}$	1.424	>0.1	0.914
Gluconic acid	$3.22 \cdot 10^{-2}$	0.575	$5.10 \cdot 10^{-2}$	0.743
Hippuric acid	$3.50 \cdot 10^{-6}$	0.056	$3.29 \cdot 10^{-2}$	0.494
Indoleacetic acid	$1.77 \cdot 10^{-4}$	2.569	>0.1	1.049
Isocitric acid	$4.12 \cdot 10^{-2}$	1.196	>0.1	1.677
Ketoleucine	$7.24 \cdot 10^{-4}$	0.474	$7.47 \cdot 10^{-2}$	0.883
L-Arginine	$7.97 \cdot 10^{-3}$	0.729	>0.1	1.163
L-Lactic acid	>0.05	0.928	$1.19 \cdot 10^{-2}$	1.158
L-Malic acid	$5.88 \cdot 10^{-3}$	1.634	>0.1	0.913
L-Methionine	>0.05	0.949	>0.1	1.153
L-Serine	>0.05	1.003	>0.1	1.190
L-Threonine	>0.05	0.964	>0.1	1.190
LysoPC(16:0)	$5.30 \cdot 10^{-3}$	0.910	>0.1	1.112
LysoPC(18:0)	$4.35 \cdot 10^{-3}$	0.857	>0.1	1.259
N-Methyltryptamine	$1.45 \cdot 10^{-3}$	0.323	>0.1	1.270
Orotic acid	>0.05	0.753	>0.1	0.739
Palmitic acid	$3.56 \cdot 10^{-2}$	0.687	$1.91 \cdot 10^{-2}$	0.677
PC(14:0/20:1(11Z))	$3.86 \cdot 10^{-1}$	1.105	>0.1	1.061
PC(18:1(9Z)/18:1(9Z))	$3.75 \cdot 10^{-3}$	1.289	>0.1	1.339
PC(O-14:1/2:0)	$3.77 \cdot 10^{-2}$	0.828	$3.99 \cdot 10^{-4}$	0.852
PC(O-16:1(11Z)/2:0)	$3.89 \cdot 10^{-2}$	0.874	$9.09 \cdot 10^{-2}$	1.193
PC(O-18:2(9Z,12Z)/2:0)	$1.16 \cdot 10^{-3}$	0.843	$7.36 \cdot 10^{-2}$	0.759
Platelet activating factor	$4.50 \cdot 10^{-3}$	0.857	>0.1	1.303
Propionylcarnitine	$8.34 \cdot 10^{-3}$	1.520	$9.18 \cdot 10^{-3}$	1.498
Serotonin	$8.87 \cdot 10^{-6}$	0.476	>0.1	1.356
Tetradecanoylcarnitine	$2.89 \cdot 10^{-4}$	2.052	>0.1	0.755
Thiamine monophosphate	$2.17 \cdot 10^{-3}$	1.809	$6.06 \cdot 10^{-2}$	0.747
Uracil	$7.39 \cdot 10^{-3}$	0.706	$6.32 \cdot 10^{-3}$	0.659

Uric acid	3.60 10 ⁻²	0.759	4.43 10 ⁻³	0.777
Uridine	1.82 10 ⁻³	0.671	1.10 10 ⁻²	0.662
Urocanic acid	>0.05	1.037	4.35 10 ⁻²	0.448