

**Table S1.** Range, detection, and quantitation limits for measured metabolites.

	Lowest Sample	Highest Sample	Lower Limit of Detection ( $\mu\text{M}$ )	Lower Limit of Quantification ( $\mu\text{M}$ )
C0	24.19	234.32	10.2	10.2
C14:1	0.17	2.49	0.021	0.021
C18:1	0.09	0.56	0.078	0.078
Ala	162.19	2182.50	1	20
Arg	57.46	490.81	0.5	5
Asn	130.26	1008.13	1.5	5
Asp	4.15	274.06	1.5	5
Cit	13.38	221.20	1	5
Gln	295.93	4254.90	1.5	20
Glu	6.50	422.65	2	10
Gly	129.40	2291.49	0.5	25
His	48.69	385.54	0.5	5
Ile	50.21	397.68	0.5	5
Leu	88.48	743.53	1.5	50
Lys	143.45	1024.25	0.5	10
Met	14.58	137.47	0.1	5
Orn	49.99	595.25	0.5	5
Phe	41.06	341.23	0.1	5
Ser	66.05	706.22	1	5
Thr	210.40	1865.27	0.5	5
Trp	21.67	267.54	0.5	5
Tyr	28.00	360.42	0.5	5
Val	126.42	1324.78	0.5	10

<b>Ac-Orn</b>	0.52	15.19	0.2	1
<b>ADMA</b>	0.20	3.25	0.08	0.25
<b>Creatinine</b>	4.25	334.21	1	10
<b>Kynurenine</b>	1.72	21.00	0.3	1
<b>Putrescine</b>	0.04	0.97	0.02	0.1
<b>Serotonin</b>	0.13	4.14	0.03	0.1
<b>Taurine</b>	43.93	602.38	0.8	2.5
<b>Total DMA</b>	1.06	11.89	0.1	1.25
<b>LysoPC a C16:0</b>	90.92	811.22	0.105	0.105
<b>LysoPC a C16:1</b>	1.94	20.16	0.059	0.059
<b>LysoPC a C17:0</b>	0.99	19.11	0.02	0.02
<b>LysoPC a C18:0</b>	12.48	146.48	0.255	0.255
<b>LysoPC a C18:1</b>	14.15	162.37	0.035	0.035
<b>LysoPC a C18:2</b>	21.84	322.05	0.105	0.105
<b>LysoPC a C20:3</b>	1.50	18.67	0.026	0.026
<b>LysoPC a C20:4</b>	5.64	57.16	0.02	0.02
<b>LysoPC a C24:0</b>	0.25	6.72	0.05	0.05
<b>LysoPC a C26:0</b>	0.29	8.56	0.07	0.07
<b>LysoPC a C26:1</b>	0.22	8.07	0.018	0.018
<b>LysoPC a C28:0</b>	0.17	10.62	0.127	0.127
<b>LysoPC a C28:1</b>	0.28	5.45	0.009	0.009
<b>PC aa C24:0</b>	0.13	5.45	0.043	0.043
<b>PC aa C26:0</b>	0.90	22.70	0.838	0.838
<b>PC aa C28:1</b>	1.41	13.31	0.081	0.081
<b>PC aa C30:0</b>	1.39	35.61	0.128	0.128
<b>PC aa C30:2</b>	0.05	2.56	0	0

<b>PC aa C32:0</b>	6.25	112.57	0.02	0.02
<b>PC aa C32:1</b>	4.90	266.08	0.005	0.005
<b>PC aa C32:2</b>	0.18	25.96	0.013	0.013
<b>PC aa C32:3</b>	0.18	2.83	0.008	0.008
<b>PC aa C34:1</b>	105.91	2299.28	0.033	0.033
<b>PC aa C34:2</b>	175.79	2557.55	0.054	0.054
<b>PC aa C34:3</b>	4.40	138.82	0.012	0.012
<b>PC aa C34:4</b>	0.48	11.81	0.014	0.014
<b>PC aa C36:0</b>	0.78	15.32	0.317	0.317
<b>PC aa C36:1</b>	13.58	441.70	0.014	0.014
<b>PC aa C36:2</b>	77.26	1521.85	0.016	0.016
<b>PC aa C36:3</b>	40.90	761.52	0.011	0.011
<b>PC aa C36:4</b>	72.84	995.09	0.01	0.01
<b>PC aa C36:5</b>	11.76	257.12	0.003	0.003
<b>PC aa C36:6</b>	0.30	7.30	0.003	0.003
<b>PC aa C38:0</b>	1.02	13.75	0.005	0.005
<b>PC aa C38:1</b>	0.10	12.72	0.008	0.008
<b>PC aa C38:3</b>	13.13	267.29	0.009	0.009
<b>PC aa C38:4</b>	29.80	578.75	0.01	0.01
<b>PC aa C38:5</b>	19.75	340.12	0.011	0.011
<b>PC aa C38:6</b>	30.19	504.60	0.393	0.393
<b>PC aa C40:2</b>	0.07	3.06	0.005	0.005
<b>PC aa C40:3</b>	0.20	4.58	0.002	0.002
<b>PC aa C40:4</b>	0.79	23.62	0.011	0.011
<b>PC aa C40:5</b>	2.52	62.68	0.002	0.002
<b>PC aa C40:6</b>	10.15	235.49	0.281	0.281

<b>PC aa C42:0</b>	0.19	2.24	0.031	0.031
<b>PC aa C42:1</b>	0.08	1.59	0.007	0.007
<b>PC aa C42:2</b>	0.09	1.80	0.056	0.056
<b>PC aa C42:4</b>	0.05	0.88	0.006	0.006
<b>PC aa C42:5</b>	0.07	2.76	0.001	0.001
<b>PC aa C42:6</b>	0.16	3.19	0.278	0.278
<b>PC ae C30:0</b>	0.16	3.54	0.134	0.134
<b>PC ae C30:1</b>	0.08	4.81	0.018	0.018
<b>PC ae C30:2</b>	0.05	1.26	0.006	0.006
<b>PC ae C32:1</b>	1.15	22.93	0.005	0.005
<b>PC ae C32:2</b>	0.32	4.55	0.016	0.016
<b>PC ae C34:0</b>	0.43	13.58	0.025	0.025
<b>PC ae C34:1</b>	3.68	84.57	0.014	0.014
<b>PC ae C34:2</b>	3.77	64.81	0.008	0.008
<b>PC ae C34:3</b>	2.11	33.49	0.027	0.027
<b>PC ae C36:0</b>	0.35	5.96	0.139	0.139
<b>PC ae C36:1</b>	2.95	58.63	0.121	0.121
<b>PC ae C36:2</b>	4.79	93.16	0.028	0.028
<b>PC ae C36:3</b>	2.45	46.64	0.004	0.004
<b>PC ae C36:4</b>	8.33	102.99	0.016	0.016
<b>PC ae C36:5</b>	4.32	49.25	0.005	0.005
<b>PC ae C38:0</b>	0.50	9.80	0.103	0.103
<b>PC ae C38:1</b>	0.03	4.03	0.014	0.014
<b>PC ae C38:2</b>	0.58	16.63	0.006	0.006
<b>PC ae C38:3</b>	1.35	23.19	0.012	0.012
<b>PC ae C38:4</b>	5.58	81.41	0.016	0.016

<b>PC ae C38:5</b>	6.70	85.31	0.023	0.023
<b>PC ae C38:6</b>	2.80	38.27	0.001	0.001
<b>PC ae C40:1</b>	0.42	9.57	0.008	0.008
<b>PC ae C40:2</b>	0.62	7.93	0.01	0.01
<b>PC ae C40:3</b>	0.30	4.53	0.008	0.008
<b>PC ae C40:4</b>	0.72	12.88	0.049	0.049
<b>PC ae C40:5</b>	1.01	16.55	0.003	0.003
<b>PC ae C40:6</b>	1.55	28.21	0.013	0.013
<b>PC ae C42:1</b>	0.16	3.67	0.094	0.094
<b>PC ae C42:2</b>	0.20	3.54	0.006	0.006
<b>PC ae C42:3</b>	0.28	5.10	0.011	0.011
<b>PC ae C42:4</b>	0.18	3.57	0.3	0.3
<b>PC ae C42:5</b>	0.62	8.73	0.623	0.623
<b>PC ae C44:3</b>	0.06	1.48	0.025	0.025
<b>PC ae C44:4</b>	0.08	1.78	0.075	0.075
<b>PC ae C44:5</b>	0.50	6.91	0.065	0.065
<b>PC ae C44:6</b>	0.34	5.07	0.035	0.035
<b>SM (OH) C14:1</b>	1.90	20.95	0.012	0.012
<b>SM (OH) C16:1</b>	0.89	11.60	0.008	0.008
<b>SM (OH) C22:1</b>	3.68	35.91	0.004	0.004
<b>SM (OH) C22:2</b>	2.88	28.31	0.01	0.01
<b>SM (OH) C24:1</b>	0.30	3.48	0.002	0.002
<b>SM C16:0</b>	37.68	437.68	0.03	0.03
<b>SM C16:1</b>	4.33	52.46	0.015	0.015
<b>SM C18:0</b>	7.74	90.27	0.008	0.008
<b>SM C18:1</b>	2.57	31.21	0.01	0.01

<b>SM C20:2</b>	0.07	0.71	0.003	0.003
<b>SM C24:0</b>	4.38	61.68	0.003	0.003
<b>SM C24:1</b>	13.43	182.41	0.001	0.001
<b>SM C26:0</b>	0.02	0.83	0.004	0.004
<b>SM C26:1</b>	0.08	2.57	0.004	0.004
<b>H1</b>	3623.85	26918.34	29.9	200