

Supplementary Tab 1: Identification of substrate of K-CP in mice liver

Accession UniProtKB	Description	Symbol
P60710	Actin,cytoplasmic1	Actb
P63260	Actin,cytoplasmic2	Actg1
Q8BWT1	3-ketoacyl-CoA thiolase, mitochondrial	Acaa2
Q91X83	S-adenosylmethionine synthase isoform type-1	Mat1a
Q61176	Arginase-1	Arg1
Q8VCH0	3-ketoacyl-CoA thiolase B,	Acaa1b
Q921H8	3-ketoacyl-CoA thiolase A,	Acaa1a
Q8C196	Carbamoyl-phosphate synthase, mitochondrial	Cps1
P00329	Alcohol dehydrogenase 1	Adh1
P08249	Malate dehydrogenase, mitochondrial	Mdh2
P12710	Fatty acid-binding protein	Fabp1
P68033	Actin, alpha cardiac	Actc1
P54869	Hydroxymethyl glutaryl-CoA synthase, mitochondrial	Hmgcs2
P26443	Glutamate dehydrogenase 1, mitochondrial	Glud1
P17182	Alpha-enolase	Eno1
Q91Y97	Fructose-bisphosphate aldolase B	Aldob
P10126	Elongation factor1-alpha1	Eef1a1
P62631	Elongation factor1-alpha2	Eef1a2
O88844	Isocitrate dehydrogenase	Idh1
Q9QXD6	Fructose-1,6-bisphosphatase 1	Fbp1
Q9CQN1	Heat shock protein	Trap1
P17742	Peptidyl-prolyl cis-trans isomerase	Ppia
P50247	Adenosyl homocysteinease	Ahcy
P43277	Histone H1.3	H1-3
P43274	Histone H1.4	H1-4
P43276	Histone H1.5	H1-5
P51881	ADP/ATP translocase 2	Slc25a5
Q9CQV8	14-3-3 protein beta/alpha	Ywhab
P63101	14-3-3 protein zeta/delta	Ywhaz
P61982	14-3-3 protein gamma	Ywhag
P68510	14-3-3 protein eta	Ywhah
P10649	Glutathione S-transferase	Gstm1
P08228	Superoxide dismutase	Sod1
P30115	Glutathione S-transferase A3	Gsta3
P10648	Glutathione S-transferase A2	Gsta2
P13745	Glutathione S-transferase A1	Gsta1
P47738	Aldehyde dehydrogenase, mitochondrial	Aldh2
P16858	Glyceraldehyde-3-phosphate dehydrogenase	Gapdh
Q64478	Histone H2B type1-H	H2bc9
P10853	Histone H2B type1-F/J/L	H2bc7
Q8BMS1	Trifunctional enzyme subunit alpha, mitochondrial	Hadha
P48962	ADP/ATP translocase 1	Slc25a4

P70694	Estradiol 17 beta-dehydrogenase	Akr1c6
P63038	60 kDa heat shock protein, mitochondrial	Hspd1
O35490	Betaine--homocysteine S-methyltransferase 1	Bhmt
P24270	Catalase	Cat
A8DUK4	Beta-globin	Hbb-bs
P19157	Glutathione S-transferase P1	Gstp1
P63017	Heat shock cognate 71 kDa protein, mitochondrial	Hspa8
P16460	Argininosuccinate synthase	Ass1
P25688	Uricase	Uox
Q9DCW4	Electron transfer flavo protein	Etfb
P06151	L-lactate dehydrogenase A	Ldha
P24549	Retinal dehydrogenase 1	Aldh1a1
O35945	Aldehyde dehydrogenase 1	Aldh1a7
P84228	Histone H2B type 1-H	H3c2
P02301	Histone H3.3C	H3-5
P15105	Glutamine synthetase	Glul
P11499	Heat shock protein HSP 90-beta	Hsp90ab1
Q64442	Sorbitol dehydrogenase	Sord
P10639	Thioredoxin	Txn
P62806	Histone H4	H4c1
P07901	Heat shock protein HSP 90-alpha	Hsp90aa1
P09103	Protein disulfide-isomerase	P4hb
P35700	Peroxiredoxin-1	Prdx1
P40936	Indolethylamine N-methyltransferase	Inmt
P32020	Non-specific lipid-transfer protein	Scp2
P47915	60S ribosomal protein	Rpl29
P19639	Glutathione S-transferase Mu 3	Gstm3
P15626	Glutathione S-transferase Mu 2	Gstm2
P16015	Carbonic anhydrase 3	Ca3
P15864	Histone H1.2	H1-2
K9J7B2	UDP-glucuronosyltransferase	Ugt1a6b
Q62452	UDP-glucuronosyl transferase 1-9	Ugt1a9
Q64435	UDP-glucuronosyl transferase1-6	Ugt1a6
Q63886	UDP-glucuronosyl transferase1A1	Ugt1a1
B2RT14	UDP-glucuronosyl transferase	Ugt1a5
Q8VC30	Triokinase/FMN cyclase	Tkfc
Q64374	Regucalcin	Rgn
P50544	Long-chain-specific acyl-CoA dehydrogenase	Acadvl
Q91VB8	Alphaglobin1	Hba-a1
P17751	Triosephosphate isomerase	Tpi1
G5E850	Cytochrome b5O	Cyb5a
P56480	ATP synthase subunit, mitochondrial	Atp5f1b
P24472	Glutathione S-transferase A4	Gsta4

P35486	Pyruvate dehydrogenase E1 component subunit alpha, mitochondrial	Pdha1
P05202	Aspartate aminotransferase, mitochondrial	Got2
E9PYH3	Ethanolamine-phosphatephospho-lyase	Etnppl
P14152	Malate dehydrogenase,cytoplasmic	Mdh1
Q9DBE0	Cysteine sulfinic acid	Csad
Q8K169	UDP-glucuronosyl transferase	Ugt2b5
P68254	14-3-3 protein theta	Ywhaq
O70456	14-3-3 protein sigma	Sfn
Q8JZK9	Hydroxymethylglutaryl-CoAsynthase,cytoplasmic	Hmgcs1
Q03265	ATP synthase subunit alpha, mitochondrial	Atp5f1a
P40142	Transketolase	Tkt
P07724	Albumin	Alb
Q3V3R1	Monofunctional C1-tetrahydro folate synthase, mitochondrial	Mthfd1l
Q8R1A8	Ornithine carbamoyltransferase, mitochondrial	Otc
Q64433	10 kDa heat shock protein, mitochondrial	Hspe1
Q9DD03	Ras-related protein Rab-13	Rab13
Q99LC5	Electron transfer flavoprotein subunit alpha, mitochondrial	Etfa
Q8QZT1	Acetyl-CoA acetyltransferase,mitochondrial	Acat1
P62259	14-3-3 protein epsilon	Ywhae
P97872	Flavin-containing monooxygenase 5	Fmo5
Q9CQX2	Cytochrome b5 type B	Cyb5b
Q80W21	Glutathione S-transferase Mu 7	Gstm7
Q91VS7	Microsomal glutathione S-transferase	Mgst1
Q80X81	Acetyl-Coenzyme A acetyltransferase 3	Acat3
Q8CAY6	Acetyl-CoA acetyltransferase,cytosolic	Acat2
P63073	Eukaryotic translation initiation factor 4E	Eif4e
Q9QXF8	Glycine N-methyltransferase	Gnmt
Q9R0H0	Peroxisomal acyl-coenzyme A oxidase 1	Acox1
A2A848	Peroxisomal acyl-coenzyme A oxidase 1 (Fragment)	Acox1
P62960	Y-box-binding protein 1	Ybx1
P48758	Carbonyl reductase [NADPH] 1	Cbr1
Q8R084	UDP-glucuronosyltransferase	Ugt2b1
Q3UEP4	UDP-glucuronosyltransferase	Ugt2b36
Q8BJL9	UDP-glucuronosyltransferaseOS	Ugt2b35
Q3THS6	S-adenosylmethionine synthase isoform type-2	Mat2a
Q921I1	Serotransferrin	Tf
O35660	Glutathione S-transferase Mu 6	Gstm6
Q9DBM2	Peroxisomal bifunctional enzyme	Ehhadh
P38647	Stress-70 protein,mitochondrial	Hspa9
P52760	2-iminobutanoate/2-iminopropanoate deaminase	Rida
P60867	40S ribosomal protein	Rps20
Q8BWQ1	UDP-glucuronosyltransferase 2A3	Ugt2a3

Q8K154	UDP-glucuronosyltransferase	Ugt2b34
Q8R5I6	Glutathione S-transferase Mu4	Gstm4
P11679	Keratin, type II cytoskeletal 8	Krt8
Q9WTP6	Adenylatekinase 2, mitochondrial	Ak2
P19783	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	Cox4i1
Q9JMG1	Endothelial differentiation-related factor 1	Edf1
Q920F6	Structural maintenance of chromosomes protein 1B	Smc1b
P45952	Medium-chain specific acyl-CoA dehydrogenase, mitochondrial	Acadm
G5E8R3	Pyruvate carboxylase	Pcx
P09411	Phosphoglycerate kinase 1	Pgk1
Q8VCT4	Carboxylesterase 1D	Ces1d
Q99KK7	Dipeptidyl peptidase 3	Dpp3
P62281	40S ribosomal protein	Rps11
Q9DBF1	Alpha-aminoadipicsemial dehydredhydrogenase	Aldh7a1
Q6IE21	OUT domain-containing protein	Otud6a

Supplementary Tab 2: SIRT4 interactome in mice hepatoma cell by Bio-ID.

Accession UniProtKB	Description	Symbol
Q8R216	NAD-dependent protein lipoamidase sirtuin-4	Sirt4
P63038	60 kDa heat shock protein	Hspd1
P54869	Hydroxymethylglutaryl-CoA synthase	Hmgcs2
Q8BWT1	3-ketoacyl-CoA thiolase	Acaa2
Q8BMS1	Trifunctional enzyme subunit alpha	Hadha
Q03265	ATP synthase subunit alpha	Atp5f1a
P26443	Glutamate dehydrogenase 1	Glud1
P38647	Stress-70 protein	Hspa9
Q14CH7	Alanine--tRNA ligase	Aars2
P56480	ATP synthase subunit beta	Atp5f1b
Q8JZN5	Acyl-CoA dehydrogenase family member 9	Acad9
Q8QZT1	Acetyl-CoA acetyltransferase	Acat1
Q99JY0	Trifunctional enzyme subunit beta	Hadhb
P50544	Long-chain-specific acyl-CoA dehydrogenase	Acadvl
Q9CQN1	Heat shock protein 75 kDa	Trap1
P47738	Aldehyde dehydrogenase	Aldh2
Q9EQ20	Methylmalonate-semialdehyde dehydrogenase	Aldh6a1
Q91VA0	Acyl-coenzyme A synthetase ACSM1	Acsm1
Q9QXX4	Calcium-binding mitochondrial carrier protein Aralar2	Slc25a13
Q60597	2-oxoglutarate dehydrogenase	Ogdh
P54071	Isocitrate dehydrogenase [NADP]	Idh2
Q8CHT0	Delta-1-pyrroline-5-carboxylate dehydrogenase	Aldh4a1
P05202	Aspartate aminotransferase	Got2
P52825	Carnitine O-palmitoyltransferase 2	Cpt2
Q8VCW8	Medium-chain acyl-CoA ligase ACSF2	Acsf2
O08749	Dihydrolipoyl dehydrogenase	Dld
Q9CZN7	Serine hydroxymethyltransferase	Shmt2
Q8BFR5	Elongation factor Tu	Tufm
P08249	Malate dehydrogenase	Mdh2
Q8CGK3	Lon protease homolog	Lonp1
Q91VD9	NADH-ubiquinone oxidoreductase 75 kDa subunit	Ndufs1
Q99K67	Alpha-aminoadipic semialdehyde synthase	Aass
Q8BJ64	Choline dehydrogenase	Chdh
Q8K2B3	Succinate dehydrogenase [ubiquinone] flavoprotein subunit	Sdha
P45952	Medium-chain specific acyl-CoA dehydrogenase	Acadm
Q99LC5	Electron transfer flavoprotein subunit alpha	Etfa
Q9CZ13	Cytochrome b-c1 complex subunit 1	Uqcrc1
Q8BMF4	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex	Dlat
Q9Z2I9	Succinate--CoA ligase [ADP-forming] subunit beta	Sucla2
Q64521	Glycerol-3-phosphate dehydrogenase	Gpd2

Q61425	Hydroxyacyl-coenzyme A dehydrogenase	Hadh
Q60759	Glutaryl-CoA dehydrogenase	Gcdh
Q99MR8	Methylcrotonoyl-CoA carboxylase subunit alpha	Mccc1
Q8R1A8	Ornithine carbamoyltransferase	Otc
Q9CZS1	Aldehyde dehydrogenase X	Aldh1b1
D3YUM1	NADH dehydrogenase [ubiquinone] flavoprotein 1	Ndufv1
Q8BH95	Enoyl-CoA hydratase	Echs1
Q921G7	Electron transfer flavoprotein-ubiquinone oxidoreductase	Etfdh
Q3TCD4	Enoyl-CoA delta isomerase 2	Eci2
P36552	Oxygen-dependent coproporphyrinogen-III oxidase	Cpox
P29758	Ornithine aminotransferase	Oat
Q7TNG8	Probable D-lactate dehydrogenase	Ldhd
Q8BGA8	Acyl-coenzyme A synthetase ACSM5	Acsm5
A0A0R4J0P1	Isobutyryl-CoA dehydrogenase	Acad8
Q9JHI5	Isovaleryl-CoA dehydrogenase	Ivd
Q80XN0	D-beta-hydroxybutyrate dehydrogenase	Bdh1
Q9WU79	Proline dehydrogenase 1	Prodh
P35486	Pyruvate dehydrogenase E1 component subunit alpha	Pdha1
Q99MN9	Propionyl-CoA carboxylase beta chain	Pccb
P97807	Fumarate hydratase	Fh1
Q9D051	Pyruvate dehydrogenase E1 component subunit beta	Pdhb
Q9WTP6	Adenylate kinase 2	Ak2
Q9QYR9	Acyl-coenzyme A thioesterase 2	Acot2
Q9DB20	ATP synthase subunit O	Atp5O
Q8QZS1	3-hydroxyisobutyryl-CoA hydrolase	Hibch
Q9DCX2	ATP synthase subunit d	Atp5a
Q8BWF0	Succinate-semialdehyde dehydrogenase	Aldh5a1
Q9WUM5	Succinate--CoA ligase [ADP/GDP-forming] subunit alpha	Suc1g1
Q9CQA3	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit	Sdhb
Q8VEM8	Phosphate carrier protein	Slc25a3
P16332	Methylmalonyl-CoA mutase	Mut
Q9QZD8	Mitochondrial dicarboxylate carrier	Slc25a10
Q9CW42	Mitochondrial amidoxime-reducing component 1	Mtarc1
Q91WD5	NADH dehydrogenase [ubiquinone] iron-sulfur protein 2	Ndufs2
Q9CZW5	Mitochondrial import receptor subunit TOM70	Tomm70a
P38060	Hydroxymethylglutaryl-CoA lyase	Hmgcl
Q9CZU6	Citrate synthase	Cs
A0A087WRE7	Hydroxyacid-oxoacid transhydrogenase	Adhfe1
Q14DH7	Acyl-CoA synthetase short-chain family member 3	Acss3
P42125	Enoyl-CoA delta isomerase 1	Eci1
Q9R112	Sulfide:quinone oxidoreductase	Sqrdl
Q64433	10 kDa heat shock protein	Hspe1
Q8C5H8	NAD kinase 2	Nadk2

Q9D6R2	Isocitrate dehydrogenase [NAD] subunit alpha	Idh3a
Q9D3D9	ATP synthase subunit delta	Atp5d
Q9D172	Glutamine amidotransferase-like class 1 domain-containing protein 3A	D10jhu81e
P61922	4-aminobutyrate aminotransferase	Abat
Q791V5	Mitochondrial carrier homolog 2	Mtch2
Q3TLP5	Enoyl-CoA hydratase domain-containing protein 2	Echdc2
Q9Z2Z6	Mitochondrial carnitine/acylcarnitine carrier protein	Slc25a20
Q9DCU9	4-hydroxy-2-oxoglutarate aldolase	Hoga1
Q3V3R1	Monofunctional C1-tetrahydrofolate synthase	Mthfd1L
Q9D2G2	Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex	Dlst
Q9D6J6	NADH dehydrogenase [ubiquinone] flavoprotein 2	Ndufv2
Q571F8	Glutaminase liver isoform	Gls2
P53395	Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex	Dbt
O35423	Serine--pyruvate aminotransferase	Agxt
Q91W43	Glycine dehydrogenase (decarboxylating)	Gldc
Q9Z2I0	Mitochondrial proton/calcium exchanger protein	Letm1
Q99J39	Malonyl-CoA decarboxylase	Mlycd
Q9DCT2	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3	Ndufs3
Q9CR62	Mitochondrial 2-oxoglutarate/malate carrier protein	Slc25a11
P20108	Thioredoxin-dependent peroxide reductase	Prdx3
Q99L13	3-hydroxyisobutyrate dehydrogenase	Hibadh
Q9D6Y7	Mitochondrial peptide methionine sulfoxide reductase	Msra
Q9WVD5	Mitochondrial ornithine transporter 1 OS=Mus musculus	Slc25a15
Q9D880	Mitochondrial import inner membrane translocase subunit TIM50	Timm50
Q99LC3	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10	Ndufa10
Q9D7J9	Enoyl-CoA hydratase domain-containing protein 3	Echdc3
Q9D6M3	Mitochondrial glutamate carrier 1	Slc25a22
Q8K3J1	NADH dehydrogenase [ubiquinone] iron-sulfur protein 8	Ndufs8
Q8BH59	Calcium-binding mitochondrial carrier protein Aralar1	Slc25a12
Q6P3A8	2-oxoisovalerate dehydrogenase subunit beta	Bckdhb
Q9DC70	NADH dehydrogenase [ubiquinone] iron-sulfur protein 7	Ndufs7
Q8BIJ6	Isoleucine--tRNA ligase	Iars2
J3QMN4	Thioredoxin reductase 2	Txnrd2
Q91VA7	Isocitrate dehydrogenase [NAD] subunit	Idh3b
Q8BMS4	Ubiquinone biosynthesis O-methyltransferase	Coq3
Q06185	ATP synthase subunit e	Atp5k
P62075	Mitochondrial import inner membrane translocase subunit Tim13	Timm13
P12787	Cytochrome c oxidase subunit 5A	Cox5a

O35857	Mitochondrial import inner membrane translocase subunit TIM44	Timm44
Q61387	Cytochrome c oxidase subunit 7A-related protein	Cox7a2l
Q8R3F5	Malonyl-CoA-acyl carrier protein transacylase	Mcat
P62077	Mitochondrial import inner membrane translocase subunit Tim8 B	Timm8B
Q8R0Y8	Mitochondrial coenzyme A transporter SLC25A42	Slc25A42
P19783	Cytochrome c oxidase subunit 4 isoform 1	Cox4i1
Q9DBT9	Dimethylglycine dehydrogenase	Dmgdh
P56382	ATP synthase subunit epsilon	Atp5a
P43024	Cytochrome c oxidase subunit 6A1	Cox6a1
Q9Z0V7	Mitochondrial import inner membrane translocase subunit Tim17-B	Timm17b
Q3URS9	Mitochondrial potassium channel OS=Mus musculus	Ccdc51
Q9QYA2	Mitochondrial import receptor subunit TOM40 homolog	Tomm40
Q9D2R6	Cytochrome c oxidase assembly factor 3 homolog	Coa3
Q8BYL4	Tyrosine--tRNA ligase	Yars2

Supplementary Tab 3: Co-identified proteins in both K-CP substrates and SIRT4-interactome

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Q8BWT1	3-ketoacyl-CoA thiolase	Acaa2
P08249	Malate dehydrogenase	Mdh2
P54869	Hydroxymethylglutaryl-CoA synthase	Hmgcs2
P26443	Glutamate dehydrogenase 1	Glud1
Q9CQN1	Heat shock protein 75 kDa	Trap1
P47738	Aldehyde dehydrogenase	Aldh2
Q8BMS1	Trifunctional enzyme subunit alpha	Hadha
P63038	60 kDa heat shock protein	Hspd1
P50544	Long-chain-specific acyl-CoA dehydrogenase	Acadvl
P56480	ATP synthase subunit beta	Atp5f1b
P35486	Pyruvate dehydrogenase E1 component subunit alpha	Pdha1
P05202	Aspartate aminotransferase	Got2
Q03265	ATP synthase subunit alpha	Atp5f1a
Q3V3R1	Monofunctional C1-tetrahydrofolate synthase	Mthfd1l
Q8R1A8	Ornithine carbamoyltransferase	Otc
Q64433	10 kDa heat shock protein	Hspe1
Q99LC5	Electron transfer flavoprotein subunit alpha	Etfa
Q8QZT1	Acetyl-CoA acetyltransferase	Acat1
P38647	Stress-70 protein	Hspa9
Q9WTP6	Adenylate kinase 2	Ak2
P19783	Cytochrome c oxidase subunit 4 isoform 1	Cox4i1
P45952	Medium-chain specific acyl-CoA dehydrogenase	Acadm

Supplementary Tab 4: Untargeted metabolomic analysis of liver tissues of wild-type and *Sirt4*^{-/-} mice

ID	MS2 name	Mean <i>Sirt4</i> ^{-/-}	Mean Wild-type	VIP Value	P-Value	Fold change
1	2,5-Dihydro-2,4-dimethyloxazole	0.041863328	0.038624812	0.34602978	0.69751826	1.083845484
2	5-L-Glutamyl-taurine	0.004723562	0.013632357	1.37294953	0.20126674	0.346496372
3	L-Alanine	0.214985194	0.226289636	0.15093619	0.90179345	0.950044367
4	Glycine	0.081628457	0.088413554	0.0232655	0.83558451	0.923257274
5	Isobutyric acid	0.19140478	0.330046366	1.30390035	0.23141693	0.579933003
6	Propionic acid	0.581734653	0.88793635	1.8091149	0.12125117	0.655153552
7	Pyrrolidonecarboxylic acid	25.14939458	24.93674998	0.44083023	0.96151212	1.008527358
8	Pyruvic acid	0.672167073	0.827214096	0.13381961	0.57856725	0.812567238
9	3,3,5-triiodo-L-thyronine-beta-D-glucuronoside	5.256319523	6.261175745	0.86164849	0.59156406	0.83950998
10	Palmitic acid	75.86186601	89.86936649	1.53969394	0.12246394	0.84413487
11	Allocholic acid 16-	0.079032486	0.101041628	0.23302366	0.53110424	0.782177483
12	Methylheptadecanoic acid	29.30135496	30.97341256	0.0063129	0.88125979	0.946016358
13	Choline	1.478388334	1.095803949	1.26463333	0.25244561	1.349135797
14	L-Norleucine	7.149862409	8.959128046	1.31299065	0.18435525	0.798053379
15	Adenine	4.578376727	4.304217559	0.23738376	0.66549004	1.063695472
16	Taurine	0.181031706	0.167041044	0.21770815	0.80451784	1.083755833
17	D-Alanine	10.05039164	10.48664593	0.07867902	0.85061975	0.958399064
18	Oleic acid	67.02027913	94.7643614	0.86896673	0.38071661	0.707230842
19	L-Lactic acid	130.1730203	117.154587	1.19081959	0.69547159	1.11112184
20	Linoleic acid	50.63697009	70.49027384	1.617975	0.13251817	0.718353999
21	Stearic acid	0.106075891	0.140543889	1.09549862	0.27641302	0.754752782
22	Hypogeic acid 5-	10.47582314	10.60143979	0.20010533	0.96546298	0.988150982
23	Hydroperoxyeicosatetraenoic acid	0.094668678	0.117989317	0.26626891	0.66794238	0.802349573
24	L-Leucine	4.155247355	5.38590457	1.32625252	0.19745932	0.771504081
25	Hepoxilin A3	0.344300266	0.457188041	0.03711743	0.60894496	0.753082397
26	Alpha-Linolenic acid	4.846610545	4.287138304	1.01219662	0.67322251	1.130500161
27	Pyroglutamic acid	0.476660829	0.38468022	1.42452092	0.14314969	1.239109277
28	5-Aminopentanoic acid	2.526066043	2.386358231	0.06115407	0.92510565	1.058544359
29	beta-Alanine	0.39650088	0.42172247	0.94187511	0.84945236	0.940193867
30	Malonic acid	1.342563001	1.732404049	1.04713381	0.33727839	0.774971059
31	Tridecanoic acid	0.764879743	0.710584294	0.40780866	0.60879786	1.076409582

32	1-Pyrroline	0.065045816	0.081879881	0.93918437	0.6340807	0.794405349
33	Betaine	1.028193533	1.468854366	1.55692921	0.19488719	0.699996921
34	Heptadecanoic acid	2.134357023	2.773294433	1.41899715	0.13656658	0.769610683
35	Tauroursodeoxycholic acid	6.680628315	6.776030736	0.10391418	0.97326767	0.985920604
36	15-Deoxy-d-12,14-PGJ2	0.707952455	0.79906637	0.13364324	0.83433786	0.885974535
37	Glycolic acid	1.673087495	2.471426958	0.94047446	0.13017706	0.67697226
38	Creatinine	3.56225305	4.880333175	1.02827725	0.25935284	0.729920053
39	Creatine	2.133570782	1.721070943	1.12639693	0.20769214	1.239676255
40	L-Isoleucine	3.007200629	3.33450901	0.48334881	0.5786093	0.901842106
41	6-trans-Leukotriene B4	0.055752158	0.060508992	0.51857799	0.70609238	0.921386326
42	Hypoxanthine	0.96271052	1.090699762	1.07670752	0.70373693	0.882654012
43		2.529768615	2.531841544	0.25302526	0.99543489	0.999181257
44	Neotrehalose	0.269724797	0.187252401	0.81591782	0.4567698	1.440434391
45	Carnosic acid	1.094427813	1.258071508	0.24484582	0.80958949	0.869924965
46	2-Pyrrolidineacetic acid	0.073586189	0.04445311	0.92133692	0.21503633	1.655366477
47	(R)-3-Hydroxybutyric acid	4.110642846	3.091795371	1.07718048	0.40112742	1.329532635
48	1-Methylnicotinamide	3.831236492	2.737796008	0.89134041	0.29114823	1.399387128
49	Niacinamide	48.97587028	44.34929525	0.73360236	0.42522236	1.104321275
50	Beta-Carboline	0.14693953	0.119709512	1.21359569	0.43895937	1.227467452
51	Caprylic acid	3.233854094	3.686282991	1.24820552	0.1922286	0.877266911
52	Ethyl dodecanoate	0.07230271	0.065805072	0.21867585	0.79202613	1.098740697
53	Cholic acid	0.017969992	0.028392437	0.3892969	0.31759958	0.632914743
54		0.048407257	0.07741013	1.17661023	0.07556207	0.625334918
55	Arachidonic acid	23.66526711	29.54998011	1.14355553	0.25760873	0.800855602
56	Deoxyguanosine	3.132332593	1.418197454	0.35292406	0.47714449	2.208671708
57	1H-Pyrrole-2-carboxaldehyde	0.059650226	0.054168711	0.76611123	0.47599911	1.101193384
58	Inosine 13S-	5.17930509	5.720743326	0.56567712	0.63205151	0.905355265
59	hydroxyoctadecadienoic acid	0.357325566	0.46395757	1.40054453	0.23538709	0.77016863
60	Piperidine	0.446746036	0.515060128	0.24990655	0.73844543	0.867366762
61	Acrylic acid	2.282754022	2.378110966	0.50613642	0.71744822	0.959902231
62	Ribitol	3.787791546	3.93995566	0.08654353	0.78427108	0.961379232
63	L-Proline	2.52451617	2.397839305	0.27647279	0.90527928	1.052829589
64	Taurocholic acid	18.83953673	15.45563696	0.98358066	0.67849827	1.218942757
65	Pseudoecgonine	0.202958584	0.238691531	1.04203784	0.55967971	0.850296542
66	Pelargonic acid	21.15024439	24.20789983	1.06817599	0.24817986	0.873691834
67	Succinic acid	22.45999853	26.69386671	0.98714749	0.40199301	0.841391724

68	Uridine 5'-monophosphate	0.320094474	0.232731517	1.89660741	0.08038579	1.375380863
69	5-(2-Hydroxyethyl)-4-methylthiazole	1.036235916	1.062690872	0.09734257	0.88716279	0.97510569
70	Guanine	0.182503269	0.247834242	0.99830794	0.35422692	0.73639247
71	Quinoline	0.036814054	0.035721876	1.10100352	0.91636224	1.030574483
72	2-Hydroxystearic acid	0.214996281	0.276827929	0.78816045	0.60540202	0.776642305
73	(2E,11Z)-5-[5-(Methylthio)-4-penten-2-ynyl]-2-furanacrolein	0.11493422	0.092147594	0.90689529	0.3499717	1.247283998
74		7.267052143	4.684013488	0.04636172	0.41556531	1.551458415
75	N-Acetylhistidine	0.349247917	0.298331941	0.66476398	0.58249019	1.170668873
76	2-Furoic acid	0.469879242	0.483296919	0.46017947	0.80599078	0.972237196
77	L-Carnitine	112.2989444	132.5499072	1.01136059	0.52179348	0.847220091
78	Uracil	1.474493127	1.747999261	0.74929994	0.61826277	0.843531894
79	Uridine	0.535387227	0.659740215	0.93247035	0.53632545	0.81151219
80	Aminoadipic acid	2.285237549	2.978099349	0.83171406	0.8180368	0.767347654
81	Pipecolic acid	0.121883936	0.118659474	0.01694172	0.90163868	1.027174078
82	Valdecoxib	0.01847547	0.010247548	1.06153344	0.059642	1.802916254
83	L-Glutamine	8.804794767	7.685940345	0.26093426	0.53739805	1.145571572
84	Trigonelline	1.676705826	1.134467571	0.16554705	0.66434562	1.477967171
85	Pyrrolidine	1.233030402	0.847020846	1.91966017	0.01871251	1.455726159
86	Riboflavin	0.023513015	0.019326096	0.7167224	0.59886571	1.216645889
87	1-Kestose	0.185851159	0.233911012	0.76477341	0.43337524	0.794537877
88	Nervonyl carnitine	0.813669171	0.652260058	1.20998432	0.49057422	1.247461287
89	Cytosine	1.384136291	0.926973628	1.28742482	0.1729368	1.493177637
90	Stachyose	0.04427382	0.043853402	0.18413724	0.97362656	1.009586902
91	2-Methyl-6-(2-propenyl)pyrazine	0.069584134	0.065666484	0.12137161	0.77144022	1.059659822
92	Docosahexaenoic acid	10.08400326	12.40463484	1.26648841	0.24527226	0.812922217
93	3-Hydroxybutyric acid	13.22887952	12.87820026	0.28678802	0.93381046	1.027230456
94	D-Pipecolic acid	0.546300374	0.30166425	1.18417609	0.04261905	1.810954975
95	2-Methylpyridine	0.017362376	0.026379283	1.40955215	0.40904595	0.658182246
96	L-Malic acid	2.723534783	2.6208573	0.23876866	0.79342361	1.03917706
97	Indoxyl	0.148349677	0.13063507	0.89663432	0.66421995	1.135603755
98		1.358100074	1.824290409	1.04960527	0.2761907	0.74445388
99	Quinic acid	0.194319926	0.148484948	0.82792429	0.31593154	1.308684336
100	L-Gulose	6.867098305	6.988059036	0.57188671	0.64597838	0.982690368
101	(R)-mandelic Acid	0.146344	0.251514436	1.63591123	0.09033671	0.581851294
102	L-Erythrulose	6.489643345	8.304868838	1.25413145	0.21645513	0.78142635
103	5-Acetamidovalerate	0.30207668	0.289450585	0.16219271	0.87112498	1.0436209
104	L-Glutamic acid	1.735857431	1.297596966	1.47826625	0.20872909	1.337747758

105	Dihydroxyacetone phosphate	0.066226166	0.056301156	1.28163609	0.28631564	1.176284301
106	Glutaric acid	3.550411589	1.994601547	0.97426116	0.46849605	1.780010445
107	Cohumulone	0.030589049	0.055001322	0.73865277	0.29861553	0.556151159
108	D-Glucose	0.514646009	0.448637585	1.17432768	0.60971176	1.147130837
109	Xanthosine	0.688336971	0.928508072	0.34813183	0.29136564	0.74133655
110	Citric acid	0.348003278	0.330045293	0.28021088	0.80005641	1.054410668
111	1H-Pyrrolo[2,1-c][1,4]thiazine	0.024664366	0.011730308	1.48233118	0.08810733	2.102618802
112	Kynurenic acid	0.011610161	0.013278087	0.66072064	0.74392409	0.874385071
113	L-Histidine	0.996225462	1.387968569	1.01220438	0.22821207	0.717757941
114	Valyl-Proline	0.028533318	0.02833675	0.34565131	0.9894158	1.006936854
115	3'-O-Methyladenosine	0.6251956	0.560581267	0.00636535	0.72310486	1.115263098
116	Triethylamine	0.626284021	0.775797951	1.01946595	0.52227107	0.80727723
117	Ketoleucine	2.403061992	2.643216754	0.55379251	0.55161928	0.909142993
118	2,3-Dihydroxybutanedioic acid	0.29419837	0.231523732	0.85363258	0.56273814	1.270705031
119		0.766175227	0.746980415	0.52229109	0.88226283	1.02569654
120	Thiamine	5.561847502	5.624618465	0.01407476	0.94966974	0.988839961
121	1-(1-Pyrrolidiny)-2-propanone	0.093386647	0.093546589	0.17763813	0.99687191	0.998290244
122	Valeric acid	1.987729468	2.088627194	0.5434229	0.62608316	0.951691845
123	Putrescine	0.319671491	0.291751196	0.66030627	0.60580159	1.095698991
124	2-Hydroxypyridine	0.007331717	0.005704928	0.04653616	0.6422922	1.285155016
125	5'-Methylthioadenosine	16.2162534	15.22321662	0.00030155	0.78484649	1.065231732
126		3.188528198	4.796130882	1.11180343	0.12176834	0.664812591
127	Glycerol 3-phosphate	0.06996105	0.068398334	0.29689948	0.93047952	1.022847277
128	Terephthalic acid	3.021709996	3.134152924	0.99164119	0.3703766	0.964123343
129	Octadecylamine	0.378847304	0.286505626	1.09702721	0.35318489	1.322303193
130	Diethanolamine	0.205904519	0.153292288	0.85562779	0.25370072	1.343215124
131	Isoacitretin	0.033379188	0.058450846	1.19598752	0.05729473	0.571064242
132	Racemethionine	0.60244929	0.789741826	0.87843845	0.3480737	0.762843336
133	1-Methyl-3-(2-thiazolyl)-1H-indole	0.051762825	0.042270857	0.2292967	0.47218099	1.224551107
134	4-Guanidinobutanoic acid	2.572650475	2.465172954	0.15519373	0.94158617	1.043598369
135	2-Hydroxyethanesulfonate	67.02936009	91.52054997	1.31889046	0.22002376	0.732396824
136	N-Alpha-acetyllysine	0.108236666	0.083698146	1.56062069	0.1292516	1.293178774
137	Betaine aldehyde	0.461024516	0.518680878	0.07010974	0.80527209	0.888840393

138	Eicosapentaenoic acid	1.859320688	2.493591166	1.0533853	0.35786215	0.745639748
139	4-Hydroxy-2-butenic acid gamma-lactone	0.32663073	0.219988823	0.9729715	0.30354277	1.484760569
140	Benzoic acid	0.516216762	0.54421464	1.34205234	0.19761595	0.948553611
141		0.090999764	0.097727575	1.02273047	0.83213373	0.931157494
142	Neocretanin	0.050422034	0.058223053	0.16271264	0.78234312	0.866014948
143	Metenamine	1.905542037	1.871216044	0.41955331	0.79145018	1.018344217
144	Linoleamide	0.046382359	0.044303216	0.24348287	0.77238747	1.046929841
145	1H-Indole-3-carboxaldehyde	0.076441293	0.073006194	1.12033751	0.86957164	1.047052164
146	Glucose 6-phosphate	0.348014394	0.480242311	1.02339904	0.31787513	0.724664166
147	Phosphoric acid	0.114379104	0.092548573	0.94647191	0.31106014	1.235881877
148	Deoxyeritadenine	0.158169639	0.122432278	1.44985274	0.18635698	1.291894933
149	Purine	0.046419578	0.046374993	0.40642143	0.99816064	1.000961408
150	4-Amino-2-methylenebutanoic acid	0.697128388	0.625143479	0.86879262	0.74976028	1.11514942
151	3-Dehydrocarnitine	3.517160649	2.407388071	0.26369836	0.49559457	1.460986158
152	(+)-2,3-Dihydro-3-methyl-1H-pyrrole 4-	0.116317308	0.154208052	1.01192449	0.43467252	0.754288161
153	Dodecylbenzenesulfonic Acid	15.48608726	12.90367667	0.79385986	0.48483485	1.200129827
154	Imidazoleacetic acid riboside	0.020153672	0.01472735	0.96031001	0.79748722	1.36845204
155	Fructose-1P	5.714582967	8.90215588	0.73927646	0.36114476	0.641932476
156	Isoleucyl-Valine	0.016522417	0.017568607	0.12730504	0.92714951	0.940451169
157	Phosphorylcholine	0.253582698	0.17526873	1.30448692	0.16657493	1.446822249
158	Cholesterol	0.116369593	0.1683377	1.06822454	0.29022237	0.691286585
159		27.1887492	31.82533253	1.29988761	0.29355821	0.854311551
160	Stearidonic acid	0.187522615	0.143598018	0.96015592	0.31346098	1.305885811
161	Pyro-L-glutamyl-L-glutamine	0.020002287	0.017934034	1.09642683	0.79566867	1.115325628
162	Cytarabine	0.042905096	0.034908301	0.92687915	0.31065282	1.229080028
163	Cytidine monophosphate	0.140322594	0.124605864	0.92117305	0.43045994	1.126131543
164	Lauroyl diethanolamide	0.105271264	0.111933118	0.75620845	0.51948108	0.940483624
165	Xanthine	7.260078324	11.15741197	0.95703191	0.08960028	0.65069555
166	8-Hydroxyadenine	0.037822798	0.02623545	1.06430066	0.36220006	1.441667585
167	2-Acetylpyrazine	0.212951698	0.169949762	1.45035119	0.32768463	1.253027334
168	2-O-Acetylarginine	0.033602925	0.049801787	1.17423361	0.26012075	0.674733316
169	Patchoulenone	2.537425089	2.138315802	1.04604977	0.624154	1.18664656

170	($\pm$)-Anisoxide	0.050358493	0.049257151	0.92651574	0.95307902	1.022359019
171	Allantoin	17.67173592	13.70787367	1.23124212	0.40964651	1.289166821
172	L-Valine	0.041112396	0.051702958	0.04492007	0.57299326	0.795165259
173		0.776668928	0.682324172	0.18681362	0.6712378	1.138269695
174	Oleamide	0.772440475	0.775639292	0.196472	0.97669431	0.995875896
175	Acetylhydrazine	0.071907967	0.069487739	0.10216816	0.87997254	1.034829573
176	LysoPE(16:1(9Z)/0:0)	0.065666329	0.056833737	0.45062027	0.5528647	1.155411061
177		4.898974129	5.836485816	1.20042458	0.2977638	0.839370519
178	L-Serine	0.234417712	0.249011124	0.27612781	0.81584749	0.941394538
179	Trimethylamine N-oxide	0.200472184	0.128748829	1.16358797	0.36249668	1.55707967
180	N-Acetylglutamine	0.537725524	0.381968191	0.67693833	0.30482407	1.407775663
181	Anserine	0.020678248	0.017212812	0.50791068	0.73173956	1.201328895
182	Maleic acid	1.469160508	2.427971926	1.38044998	0.22487176	0.605097815
183	Indoleacetaldehyde	3.152180184	3.57705548	1.07528465	0.67602639	0.881222056
184	N-Acetyl-L-methionine	0.040898737	0.041021493	0.23876109	0.99323348	0.997007533
185	Prostaglandin D2	1.299444023	1.156671055	0.4659659	0.73052313	1.123434375
186	Pentadecanoic acid	1.302804415	1.422729777	0.75183165	0.39731004	0.915707561
187		109.2734293	135.6586658	1.63600564	0.1528095	0.805502757
188	Diethyl fumarate	0.005797592	0.008337703	0.43947324	0.46096902	0.695346455
189	D-Glutamine	7.998391607	11.19073127	1.04785509	0.28576687	0.714733597
190	apo-[3-methylcrotonoyl-CoA:carbon-dioxide ligase (ADP-forming)]	0.068313827	0.065382517	0.51567622	0.82548763	1.044833246
191	5,6-Dihydroxyindole	0.227798969	0.320003366	1.16431142	0.26956192	0.71186429
192	9,10-DHOME	0.133680994	0.174600602	1.35981278	0.30795282	0.765638792
193	Argininic acid	0.084047226	0.059410416	1.16888214	0.42094879	1.414688392
194	Methylpyrazine	0.185094854	0.234344187	0.43800283	0.71819492	0.789841881
195	Proline betaine	1.077740046	1.122612578	0.30397845	0.96050975	0.960028479
196	L-Acetylcarnitine	17.5507074	15.32165271	0.84414756	0.75558215	1.145483959
197	2,6-Dimethylpyrazine	0.083314838	0.089361108	0.04611039	0.83008746	0.93233891
198	LysoPE(16:0/0:0)	1.140225404	0.968664875	1.00583166	0.5593157	1.177110302
199	Malic acid	1.854451834	1.827165094	0.20729178	0.96390154	1.014933922
200	Cyclamic acid	0.017753523	0.027115139	0.48408868	0.57409315	0.654745799
201	Butyrylcarnitine	5.500632588	4.061464486	1.72331992	0.16705873	1.354347085
202	Polyoxyethylene (600) monoricinoleate	0.079156575	0.102087488	1.76671871	0.05190691	0.775379797
203	Threonic acid	0.27303986	0.293434988	0.46371642	0.73516492	0.930495244
204	Prolyl-Alanine	0.008596973	0.012866527	1.52457485	0.30541812	0.668165828
205	L-Phenylalanine	2.039836289	2.920456659	1.97804591	0.06083361	0.698464839
206	Acetamidopropanal	0.081049055	0.075570085	0.19421235	0.73681756	1.072501836
207	Inosine 2'-phosphate	0.329721227	0.289603473	0.7560637	0.50929912	1.138526498

208	Erythrono-1,4-lactone	0.041981926	0.05765549	1.69680486	0.11979501	0.728151406
209	Valyl-Threonine	0.020421249	0.020789421	0.27097273	0.95411066	0.982290385
210	Mesalazine	0.175780962	0.214652063	0.77567569	0.66216648	0.81891112
211	D-Mannose	0.669073158	0.755098049	0.96992608	0.30947619	0.886074542
212	D-Myo-inositol 4-phosphate	0.259586395	0.276170951	0.23496645	0.75216303	0.939948227
213	Aspartyl-Proline	0.034132154	0.033680501	0.02843114	0.96999274	1.01340992
214	Pyrimidine	0.166718261	0.103072678	1.16278354	0.12216164	1.617482579
215	Saccharopine	0.194262189	0.130462995	1.16816154	0.53821892	1.48902138
216	Valyl-Lysine	2.277050717	1.533598687	1.28229525	0.18236563	1.484776126
217	Adenosine 2'-phosphate	6.287490417	4.899135015	1.4235358	0.20605212	1.283387863
218	L-Threonine	1.08026825	1.299470317	0.81789239	0.5732491	0.831314295
219	Dodecanoic acid	1.131398413	1.011462482	0.72073889	0.44675724	1.118576748
220	Ethyl tetradecanoate	0.137868052	0.264783934	1.22107603	0.06334843	0.520681335
221	gamma-Aminobutyric acid	0.351406532	0.299464367	0.76442245	0.72803134	1.173450235
222	L-Arginine	0.072914779	0.052374554	1.0754084	0.24900214	1.392179466
223	1H-Indole-2,3-dione 1-	0.35834112	0.590069549	1.28366198	0.27116328	0.607286244
224	Aminocyclopropanecarboxylic acid	0.081025351	0.072259158	0.0095322	0.75338961	1.12131602
225	Pentanenitrile	0.2097294	0.209489974	0.26368031	0.99210344	1.001142898
226		0.798473682	0.646560569	0.1748817	0.557648	1.234955735
227	16-Hydroxy hexadecanoic acid	0.400179869	0.576107397	1.03830037	0.18475999	0.694627201
228	Phytosphingosine	0.008505031	0.004785259	1.50650042	0.15266574	1.777339792
229	Thiiranepropanenitrile	0.035251282	0.057755726	1.6627745	0.29220305	0.610351285
230	Thiamine monophosphate	0.080696687	0.081995484	0.40633322	0.91261797	0.984160143
231	Valyl-Arginine 3-	0.013746999	0.02245031	0.79595148	0.32834142	0.612330044
232	Methylglutarylcarnitine	0.0384037	0.021763181	0.0821818	0.32073504	1.764617964
233		29.5869654	38.0595644	1.21549255	0.22661575	0.777385813
234	D-Xylitol	0.199888811	0.20919245	0.69010304	0.72744461	0.955525934
235	p-Cresol glucuronide	0.28747254	0.303408238	0.48291969	0.7403109	0.947477702
236	3-Hydroxycapric acid	0.319326038	0.268143702	1.59266389	0.1353759	1.190876518
237		0.483067344	0.434414761	0.36466637	0.67845102	1.111995694
238	Formylanthranilic acid	0.397648433	0.390106591	0.49773502	0.94439363	1.019332774
239	Adenosine monophosphate	6.581438873	5.911023637	1.02132561	0.38851221	1.11341779
240	d-Tocotrienol	0.059869324	0.010465591	2.39771678	0.00344585	5.720586962
241	Vanillylamine	0.030442171	0.022135222	1.19004372	0.42946582	1.375281924

242	Nicotine	0.108494465	0.098744686	1.01427446	0.37060325	1.098737254
243	Citramalic acid	0.029391834	0.035712713	0.77786146	0.5247243	0.823007607
244	LysoPE(18:1(9Z)/0:0)	0.614378979	0.643578761	0.21936447	0.83368575	0.954629047
245	UDP-N-acetyl-alpha-D-galactosamine	0.535514353	0.609615293	0.93998359	0.66462498	0.878446389
246	7,8-Dihydro-3-methylpyrrolo[1,2-a]pyrimidin-2(6H)-one	0.079729668	0.082882705	0.35308051	0.84416739	0.961957839
247	Acetone cyanohydrin	0.040775157	0.034657136	0.80371322	0.66392457	1.176529922
248	Methylimidazole acetaldehyde	0.183476693	0.164232827	1.70582183	0.09519963	1.117174294
249	Undecylenic acid	0.183316812	0.165042476	0.74078723	0.42440469	1.110725049
250	LysoPE(20:5(5Z,8Z,11Z,14Z,17Z)/0:0)	0.050616099	0.040150231	0.98231812	0.37269966	1.260667713
251	Citrulline	0.02857712	0.012999268	1.34108569	0.04839438	2.198363779
252	9-Decenoic acid	0.244512969	0.268145189	0.80270269	0.53671769	0.911867824
253	L-Gulonolactone	4.117984626	3.587026636	1.18445061	0.60537159	1.148021758
254	2-Amino-3-phosphonopropionic acid	0.064526871	0.03270478	1.57596025	0.03458143	1.973010439
255	N-Acetylglutamic acid	6.468430588	5.008065171	1.07048881	0.58632508	1.291602718
256	Dimethyl dialkyl ammonium chloride	0.34064435	0.557006321	1.53043513	0.18025599	0.611562808
257	bicyclo-PGE2	0.356198524	0.510745336	0.36905727	0.49356438	0.697409255
258	Ornithine	0.32717038	0.169976252	1.20966499	0.04229416	1.924800532
259	2-Isopropylphenyl methylcarbamate	0.027166752	0.022539904	1.04326877	0.42898371	1.205273631
260	2-Amino-1,7,9-trimethylimidazo[4,5-g]quinoxaline	1.239744145	0.535670819	1.60543623	0.18737014	2.314376855
261	PC(16:0/16:0)	4.996564872	4.591698944	0.22216553	0.66884061	1.088173448
262	Valyl-Hydroxyproline	0.1287478	0.09660244	1.2258216	0.36659647	1.332759293
263	L-Palmitoylcarnitine	0.519610778	0.568547111	0.79502633	0.66579708	0.913927391
264	Trimethylaminoacetone	0.124301864	0.123896372	0.22062805	0.98570519	1.003272827
265	7a-Hydroxy-cholestene-3-one	0.033337273	0.027368958	1.01982336	0.60947444	1.218068735
266	1,2,3,4,Tetrahydro-1,5,7-trimethylnapthalene	0.082222262	0.07670473	0.94084056	0.57232116	1.07193209
267	Docosahexaenoyl Ethanolamide	0.176634976	0.175749659	0.14098603	0.97975963	1.005037377
268	2-(3,4-Dihydroxybenzoyloxy)	0.836631133	0.819158191	0.03324314	0.85764604	1.021330363

	-4,6-dihydroxybenzoate					
269	2-Pyrrolidinone	0.114048729	0.09482414	1.27322847	0.26301898	1.202739395
270	D-Glucuronic acid	0.599609272	0.648222775	0.85715099	0.6851526	0.925004945
271	Squamolone	0.058935255	0.044572877	2.3082054	0.00731039	1.322222365
272	Vitamin A	0.130264165	0.129811613	0.26200105	0.99104612	1.00348622
273	N-Acetyldopamine	0.016795365	0.018018401	0.16792766	0.84379078	0.932122932
274	Thymidine	0.941958734	1.701460311	2.40262877	0.00571785	0.553617812
275	L-cis-3-Amino-2-pyrrolidinecarboxylic acid	0.802208522	0.658467102	0.72369381	0.84505978	1.218297041
276	LysoPE(0:0/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	2.202519392	2.167841984	0.21832167	0.94588397	1.01599628
277	Beta-Leucine	0.310937136	0.295928891	0.59723447	0.66929636	1.050715714
278	2-Ketobutyric acid	6.309652917	5.563582063	0.9427303	0.53516927	1.134099011
279	N-a-Acetyl-L-arginine	0.681769193	0.554646769	0.4571033	0.74858526	1.229195283
280	Homo-L-arginine	0.066250335	0.031497557	1.36598888	0.03375285	2.103348341
281	L-Iditol	0.309217625	0.470550278	1.79449706	0.08641801	0.657140457
282	N-Ornithyl-L-taurine	0.068386957	0.052807969	0.79849067	0.46389546	1.295012063
283	Hydroxyprolyl-Proline	0.064864611	0.03921659	0.29841302	0.46966215	1.654009477
284	2-Methylbutyroylcarnitine	1.811184132	1.725364992	0.5801818	0.87940992	1.049739702
285	Protein serine	0.025901331	0.021924616	0.54886322	0.61491402	1.181381264
286	Vinylacetyl glycine	0.104292113	0.110912488	0.50259173	0.60583312	0.940309918
287	Asymmetric dimethylarginine	0.576247956	0.619915324	0.05505647	0.76350946	0.929559142
288		0.228232022	0.230764868	0.23278714	0.9637132	0.989024129
289	Homocysteinesulfinic acid	0.006884051	0.014260074	1.63344644	0.06519716	0.482750009
290	L-Tyrosine	0.085233982	0.142120886	1.54008879	0.15253246	0.599728755
291		0.517271227	0.497400468	0.84659474	0.91815638	1.039949216
292	2-Amino-3,8-dimethyl-3H-imidazo[4,5-f]quinoxaline	0.874610591	0.524194725	1.1597807	0.36892592	1.668484153
293	Guanosine	0.227683887	0.307938703	0.96820746	0.32474507	0.739380546
294	D-Ribose	3.131446759	3.006015172	0.8990371	0.87929171	1.041726864
295	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/20:4(5Z,8Z,11Z,14Z))	0.575652752	0.59050395	0.3184524	0.8953118	0.97484996
296	3-Methylcytosine	0.116595154	0.112223911	0.84457165	0.91688966	1.038951089
297	D-Erythrose 4-phosphate	0.070195303	0.10150751	1.07746248	0.21123501	0.691528174

298	Adenosine 3',5'-diphosphate	0.226838553	0.206882058	0.06028585	0.72121688	1.096463151
299	DL-Glutamate	0.467710567	0.405627067	0.77698905	0.58520583	1.153055615
300	N1-Methyl-4-pyridone-3-carboxamide	1.923519788	2.425204379	0.87760682	0.60164338	0.79313719
301	1-deoxy-1-(N6-lysino)-D-fructose	0.080193763	0.088038532	0.92950297	0.82981796	0.910893914
302	2,6-Di-tert-butyl-4-methylphenol	0.366925421	0.439893544	1.57015577	0.1112806	0.834123223
303	Aspartyl-Glycine	0.046711595	0.073886641	1.07137231	0.36678602	0.632206225
304	Pantothenic acid	0.078124821	0.05087801	1.50844594	0.29440335	1.535532179
305	Perillic acid	1.899864289	1.86080768	0.14928975	0.9559665	1.020989062
306	S-(3-Methylbutanoyl)-dihydrolipoamide-E	0.076421845	0.046992652	0.77660304	0.52549627	1.626250939
307	Prolyl-Arginine	0.024315752	0.027518942	0.32236997	0.68687152	0.883600531
308	Glycerophosphocholine	0.413016421	0.475492261	1.04078096	0.66340993	0.868608084
309	Arecaidine	0.013643505	0.00805895	0.84841483	0.28933188	1.692963052
310	3-Hydroxymethylglutamic acid	0.677958199	0.773413557	1.02372242	0.44178789	0.876579152
311	L-Ribulose	3.684216672	5.125099668	2.40737576	0.01180205	0.718857566
312	4-Acetylimidazo[4,5-c]pyridine	0.213589537	0.159558266	1.25436377	0.33766099	1.33863035
313	ADP	0.063125555	0.060895669	0.30672102	0.92956279	1.036618125
314	Mesylate	2.935606213	3.336909377	0.93651413	0.44275027	0.879738069
315	5-HEPE	0.083080454	0.082260645	0.45092774	0.97625702	1.009965988
316		0.090503129	0.092865311	0.45841037	0.83225087	0.974563362
317	PC(20:5(5Z,8Z,11Z,14Z,17Z)/20:4(5Z,8Z,11Z,14Z))	0.38223307	0.380667393	0.01661565	0.9847933	1.004112979
318	Triethanolamine	1.251279606	0.819958977	0.89123578	0.12089705	1.526027082
319	($\Delta^{\pm}$)-Tryptophan	0.097493681	0.102688062	0.79015626	0.86876995	0.949415921
320	Ethyl carbamate	1.788464746	1.846149136	0.15658493	0.89718628	0.968754209
321	L-Asparagine	0.012535141	0.01530852	1.19176482	0.36333447	0.81883426
322	4-Aminohippuric acid	0.186942737	0.263735861	0.93582367	0.26602438	0.708825625
323	1,2,3,4,5,6-Hexahydro-6-methyl-7H-cyclopenta[b]pyridin-7-one	0.139862431	0.073893941	1.64448046	0.03760346	1.89274559
324		0.124364642	0.125803372	0.21179372	0.91284165	0.988563659

325	Adenosine diphosphate ribose	0.062715087	0.102882067	0.21432563	0.65358214	0.609582298
326	Inosinic acid	0.834705359	0.581989148	0.93457229	0.19033803	1.434228389
327	4-Hydroxy-1H-indole-3-acetonitrile	0.327517906	0.497154772	2.03702277	0.02431077	0.658784597
328	Histamine	0.634187046	0.940376402	0.7134205	0.61964884	0.674397022
329	Phenylalanylproline	0.014601524	0.011992093	0.92050173	0.54856891	1.217595978
330	Epidermin	0.676654841	0.472801811	1.53702855	0.28291285	1.431159578
331	Ergothioneine	0.030120437	0.027279461	0.07333031	0.8140925	1.104143416
332	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/20:3(5Z,8Z,11Z))	0.252121148	0.247485251	0.04929532	0.85936217	1.018732011
333	2,5-Dichloro-carboxymethylenebut-2-en-4-olide	0.1061595	0.136029994	1.07458084	0.39915438	0.780412445
334	Orotidine	0.037849817	0.06470954	1.38150987	0.14755395	0.584918647
335		0.286579999	0.207592159	1.90203283	0.06884136	1.380495296
336	gamma-Glutamylleucine	4.41454207	2.864212106	1.26427702	0.21157962	1.541276242
337	Prolylhydroxyproline	0.018478356	0.014412544	1.45698676	0.26733024	1.282102329
338	Pyridoxal	0.068524249	0.071989014	0.44696794	0.71591154	0.951870915
339		0.371854113	0.397215886	1.03910292	0.82731041	0.936151161
340	PC-M5'	2.978308315	2.070508365	1.04656377	0.38711978	1.438443024
341	S-Adenosylhomocysteine	0.16885072	0.110909842	1.09454405	0.18714707	1.522414217
342		0.064735898	0.09368185	1.51599856	0.36691582	0.691018569
343	benzene-1,2,4-triol	0.036759823	0.061516055	2.03540498	0.05164602	0.597564707
344	Azelaic acid	0.087406231	0.103401012	0.73211524	0.34104102	0.845313116
345	1,3-Diisopropylbenzene	0.115846038	0.125780556	0.99046928	0.75931828	0.921017056
346	Ribose 1-phosphate	0.665866739	0.628916786	0.40449335	0.78870963	1.058751735
347	1-Methyl 2-galloylgalactarate	0.057393791	0.039469339	1.50907888	0.09523737	1.454136126
348	Isovalerylglycine	0.748377992	0.596926626	1.21356872	0.4586591	1.253718563
349	Enalaprilat	0.017368294	0.020683374	0.37708094	0.7360564	0.839722451
350	NAD	0.068658783	0.070941951	0.0961813	0.90255813	0.967816393
351	3-Aminocaproic acid	0.318291794	0.169600974	1.43876947	0.08165125	1.876709709
352	Homocysteine thiolactone	0.25509997	0.361198095	1.86073942	0.05163113	0.706260562
353		0.508643764	0.511530477	0.28913386	0.98474966	0.994356714
354	LysoPE(0:0/18:3(6Z,9Z,12Z))	0.042307304	0.03556484	0.58205136	0.41900062	1.189582295
355	Valyl-Alanine	0.040764604	0.03742154	0.00654388	0.75137094	1.089335297

356	D-Ornithine	0.098595659	0.02299104	0.95814274	0.06982805	4.288438489
357	1-Methyl-1,3-cyclohexadiene	0.125302877	0.12781243	0.96977187	0.94197434	0.980365351
358	Pyrophosphate	0.105468938	0.078137239	0.7263756	0.55045491	1.349790946
359	Taurocyamine	0.865346577	0.868124624	0.01183068	0.99535752	0.996799945
360	L-Homocysteic acid	0.042174531	0.032676597	0.32133242	0.60390519	1.290664709
361	N-Cyclopropyl-trans-2-cis-6-nonadienamide	0.202546515	0.19436402	0.02277645	0.9105427	1.042098814
362	2-Hydroxyvaleric acid	0.20104456	0.252688329	1.08604625	0.33731638	0.795622658
363	PC(20:4(5Z,8Z,11Z,14Z)/14:0)	0.55582479	0.423277327	1.04908968	0.23237728	1.313145671
364	1-Hydroxy-3-methoxy-10-methylacridone	0.051189711	0.032065005	1.37862775	0.0865071	1.596435449
365	N-Nitroso-pyrrolidine	0.142967806	0.163804153	0.97492522	0.6871133	0.872797197
366	2-Phenylethyl benzoate	0.007599907	0.004379499	0.76957839	0.51730825	1.73533714
367		0.034143027	0.027730566	0.9540789	0.40159313	1.231241639
368	Cohibin C	0.711513755	0.5821851	1.55019615	0.11487905	1.222143533
369	1-Methyladenosine	0.099440009	0.077981367	1.19452717	0.48294935	1.275176526
370	Leucyl-Threonine	0.038685026	0.045574581	0.2723096	0.74156815	0.848828989
371	Linoelaidyl carnitine	0.376840233	0.37942599	0.00357909	0.98628619	0.993185082
372	Ovalicin	0.008442858	0.006129891	0.34582842	0.50896518	1.377326023
373	Suberylglycine	0.063426434	0.075825915	0.00390159	0.78093222	0.836474366
374	Glutathione	0.095463646	0.063464776	1.32812589	0.2021809	1.504198899
375	1,2-Dihydro-1,1,6-trimethylnaphthalene	0.165459812	0.191635955	1.02756595	0.56668752	0.863406934
376	Propionylcarnitine	2.618868945	2.494852582	0.32573684	0.84997014	1.049708894
377	2-Methylpiperidine	0.069095697	0.074533164	0.74104691	0.79215771	0.927046344
378		0.065597852	0.060455394	0.33826717	0.84439575	1.085062022
379	CS-S-Methylcysteine sulfoxide	0.229828545	0.222643645	0.32329056	0.87999187	1.032270849
380	Benzaldehyde	0.028728033	0.0311819	0.21262841	0.79276669	0.921304765
381	L-Fucose	0.046829961	0.060485411	0.85010582	0.47038058	0.774235642
382	Prolyl-Threonine	0.032909184	0.026403924	0.50867236	0.51716092	1.246374755
383	5-Hydroxy-L-tryptophan	0.012792685	0.037927955	2.46228722	0.0412543	0.337289082
384	3alpha,4,7,7alpha-Tetrahydro-1H-isoindole-1,3(2H)-dione	0.095597466	0.142392324	1.27853098	0.26089552	0.671366711
385	Montecristin	0.148923369	0.140615746	0.51108083	0.88879526	1.059080315
386	Glycerol	0.089037506	0.095720566	0.33061368	0.70976673	0.93018157

387	Hydroxypropyl-Hydroxyproline	0.018531976	0.01644023	0.44115723	0.73282183	1.127233322
388		0.026700687	0.027670008	0.63659473	0.66582363	0.964968515
389	Oxidized glutathione	0.701071645	0.675637707	0.30996837	0.87065128	1.037644344
390	N-Acetyl-L-alanine	0.198611485	0.213133465	0.45698367	0.68440137	0.931864385
391	PC(18:3(6Z,9Z,12Z)/18:3(6Z,9Z,12Z))	0.309413768	0.233896316	0.61737848	0.33866101	1.322867216
392	dTDP-4-acetamido-4,6-dideoxy-D-galactose	0.253417665	0.20377135	0.89173634	0.2614445	1.243637366
393	L-trans-5-Hydroxy-2-piperidinecarboxylic acid	0.18901171	0.132125728	1.26335863	0.26284357	1.430544314
394	Dihydrolipoate	1.360784654	1.265041792	0.21764396	0.63276963	1.075683557
395	Schleicherastatin 5	0.055754132	0.047937733	0.8932734	0.36381623	1.163053152
396	L-Targinine	0.056429108	0.036980457	1.15019104	0.16854633	1.525916979
397		2.236111709	1.836979403	1.65073148	0.14870623	1.217276418
398	Dihydrothymine	1.930877914	2.370763258	1.02834046	0.43738617	0.814454124
399	Deoxyinosine	0.141773027	0.164022192	0.99048726	0.65284795	0.864352714
400	Fexofenadine	1.860388845	1.839457373	0.11372259	0.977244	1.011379156
401	5-Aminopentanal	0.051836978	0.063564127	1.00008353	0.4774455	0.815506798
402	1-Methylhistidine	0.036920192	0.039863054	0.12234957	0.80457404	0.926175716
403	5-Oxo-2(5H)-isoxazolepropanenitrile	0.039569218	0.039178646	0.22360827	0.97960449	1.009969008
404	3-Sulfinato-L-alaninate	12.70733812	15.83574435	0.70741592	0.57033163	0.802446531
405	Isoleucyl-Alanine	0.018023566	0.02099856	0.47749608	0.73969243	0.858323922
406	3-Methylhistidine	0.049010366	0.043671889	0.0414656	0.78039753	1.122240573
407		0.135115192	0.125371209	0.65151743	0.82432113	1.077721057
408	3-Hydroxyisovalerylcarnitine	0.047305767	0.037471197	1.73876022	0.09835991	1.262456806
409	Pregnanetriol	1.167085505	1.319655994	0.57113147	0.51724101	0.884386166
410	(2R,3S)-Piscidic acid	0.121466126	0.190351531	0.70710968	0.30395305	0.638114786
411	Methoxy pyrazine	3.796650578	4.887336957	1.00455878	0.38247694	0.776834217
412	N-Lactoyl ethanolamine	0.069976347	0.11576485	1.17991882	0.20683955	0.604469724
413	Deoxyuridine	0.5197095	1.148974872	2.54429893	0.00462472	0.452324513
414	Benzoin	0.007832497	0.010790694	0.07790028	0.61579048	0.725856651
415	Hydrogen phosphate	0.94015888	0.878353261	0.70987061	0.65725386	1.070365332
416	6-Chloro-N-(1-methylethyl)-1,3,5-triazine-2,4-diamine	0.097770966	0.16319237	1.90010406	0.10193323	0.599114816

417	myo-Inositol PE(P-	0.83937887	0.723046096	1.18761528	0.57203223	1.16089261
418	18:1(9Z)/20:3(5Z,8Z,1 1Z))	0.121378291	0.129701662	0.95673135	0.82156037	0.935826798
419	2,6-Dimethoxy-4-(1- propenyl)phenol	0.023587853	0.018986777	0.93756361	0.364689	1.242330531
420		0.307679965	0.316506872	0.30379986	0.92561038	0.972111483
421	Lysyl-Glycine	0.17101488	0.127547351	0.64482829	0.33607491	1.340795233
422	Camellectediol	0.09259684	0.09161023	0.24624608	0.92337446	1.01076964
423	D-Maltose	0.31511522	0.241729718	0.77202203	0.58096344	1.303584943
424	Uridine diphosphate glucuronic acid	0.037824541	0.054124238	1.16434534	0.29659366	0.698846623
425	PC(22:5(4Z,7Z,10Z,1 3Z,16Z)/16:0)	14.35263449	14.85562652	0.55862533	0.67404277	0.966141312
426	4,5-Dihydro-2- methylthiazole Methyl 3b,24-	0.034415431	0.043605679	1.10623972	0.35269312	0.78924194
427	dihydroxy-11,13(18)- oleanadien-30-oate	0.101713431	0.101072274	0.00938118	0.90310962	1.006343551
428	N-Acetyl-a- neuraminic acid	0.025920362	0.03023251	0.23290702	0.6404586	0.857367206
429	Vanilloside	0.00550255	0.009065997	1.16553616	0.22421688	0.606943803
430	Gluconic acid	2.894481247	3.813824231	1.365656	0.23958966	0.758944585
431		3.785267729	5.444708032	0.69102673	0.77313144	0.695219598
432	Theogallin	0.050215745	0.032768008	1.36248005	0.11785117	1.532462542
433	Hydroxypropyl- Histidine 5'-Deoxy-5'-	0.063962477	0.043651025	1.22999005	0.29461253	1.465314413
434	(methylsulfinyl)adeno sine PC(22:6(4Z,7Z,10Z,1 3Z,16Z,19Z)/16:1(9Z))	0.257439569	0.222753895	0.41145731	0.55128642	1.155712988
435		1.181561476	1.296805235	0.69064626	0.80822662	0.911132562
436	Pterolactam	0.136553805	0.131289583	0.19654904	0.90929762	1.04009627
437	cis-4-Hydroxy-D- proline	0.317281043	0.447385278	1.11334551	0.50940929	0.709189726
438	Imidazole-4- acetaldehyde	5.137402454	5.384932384	0.18529779	0.90383913	0.954032862
439	Undecanoic acid	0.917162592	0.800326538	0.44989181	0.71692489	1.14598548
440	N-Acetylleucine	0.380367848	0.374948266	1.18676904	0.97224105	1.014454214
441	N-Methylhistamine	0.013210888	0.011264604	0.62594231	0.77028929	1.17277878
442	3-Aminoisobutanoic acid	0.116325974	0.102995933	0.70600751	0.69804065	1.129422989
443	4-Pyridoxic acid	0.008710943	0.012391283	0.84273141	0.55451807	0.702989552

444	Thioguanine	7.519452398	10.10186269	1.39441883	0.2106107	0.744362958
445	1-Cyano-2-hydroxy-3-butene	0.140545879	0.182641191	0.85899235	0.7767125	0.769519069
446	O-Phosphoethanolamine	0.435808273	0.409333474	0.03653428	0.82064029	1.064677823
447	Zymonic acid	4.795072112	3.987782169	1.04762169	0.53932356	1.202440833
448		17.60423401	11.72432539	1.09987133	0.68657948	1.501513598
449	Mesaconic acid	0.08982698	0.091051083	0.01523142	0.96005816	0.986555871
450	1-Deoxy-D-xylulose 5-phosphate	1.429973973	1.810974467	2.5000903	0.00487998	0.789615756
451	Suberic acid	0.030920654	0.030543491	0.28946139	0.95401315	1.012348396
452	N-Acetyl-glucosamine 1-phosphate	0.159798951	0.107878716	2.09210648	0.03190898	1.481283404
453	Uric acid	0.213377815	0.232565303	0.25775849	0.82237376	0.917496345
454	Santene	0.049825397	0.069264519	1.13870798	0.19624387	0.719349492
455	2-Amino-3-carboxymuconic acid semialdehyde	0.106053004	0.093286431	0.20061907	0.73254605	1.136853478
456	Citicoline	0.133343701	0.113997088	0.21622772	0.70736932	1.169711468
457	Citraconic acid	3.618483855	3.443431058	0.13795785	0.75118126	1.050836736
458	Alpha-Lactose	0.042903296	0.040885016	0.4247563	0.91808137	1.049364798
459	Adenylsuccinic acid	0.035877708	0.042510152	0.64858465	0.69760473	0.843979774
460	PC(22:5(4Z,7Z,10Z,13Z,16Z)/14:0)	4.039411507	4.047693434	0.42475535	0.9932321	0.997953914
461	5-Methylcytosine	0.275413383	0.266084547	0.29423694	0.9087417	1.035059671
462	Asparaginy-Histidine	0.014579908	0.022269559	0.70552027	0.58624678	0.65470124
463	Phlorisobutyrophenone 2-glucoside	0.304859792	0.32614456	0.26602219	0.68937439	0.93473824
464		0.108338621	0.216036962	1.59660294	0.10900128	0.501481877
465	6-Hydroxyhexanoic acid	0.040126986	0.031488091	1.08052047	0.37803363	1.274354374
466		0.31324649	0.360878156	0.84722846	0.60220485	0.868011779
467	Acetylglycine	0.596806257	0.604584103	0.35627147	0.94641401	0.987135212
468	Gluconolactone	4.530720445	4.149500276	0.55908885	0.58870764	1.091871344
469	PC(22:2(13Z,16Z)/16:1(9Z))	4.168051279	2.07922088	1.75721464	0.05255176	2.004621692
470	Taurallocholic acid	0.374596961	0.250939423	1.06320735	0.27796389	1.492778441
471	L-Lysine	1.424478782	0.777415087	1.17002226	0.04147359	1.832327163
472	Epsilon-(gamma-Glutamyl)-lysine	0.126005642	0.072592737	1.03967112	0.25605783	1.735788536
473	11-cis-Retinaldehyde	0.036751507	0.040830992	0.43706621	0.83482652	0.900088509
474	Quinoxin	0.150900349	0.13946533	0.15261904	0.76693617	1.08199184

475	2-Hydroxymyristic acid	0.240834	0.244256132	0.15533033	0.93195891	0.985989576
476		0.050580242	0.044031571	0.82585762	0.72213747	1.1487267
477	cis-5-Tetradecenoylcarnitine	0.032650049	0.038573509	0.87699958	0.64252024	0.846437114
478		0.533073071	0.532214758	0.81971261	0.99633246	1.001612718
479	Sphinganine	0.116720594	0.100899883	0.86930717	0.50744448	1.156796132
480	Glutaminyllysine	0.012611067	0.019273545	0.913352	0.30356629	0.654320049
481		2.350560928	2.133411098	1.16749582	0.75982803	1.101785273
482	Acetic anhydride	0.303472482	0.285100877	0.74676645	0.50558692	1.064438964
483	1-(Hydroxymethyl)-5,5-dimethyl-2,4-imidazolidinedione	0.638272311	0.698336215	1.23391958	0.37499371	0.913989992
484	L-Cysteine	0.255363871	0.270447856	0.10682417	0.8435477	0.944225905
485	PE(22:4(7Z,10Z,13Z,16Z)/16:0)	2.829943966	2.47118806	1.27282778	0.18120193	1.145175477
486	3-Methyl-3H-imidazo[4,5-f]quinoxalin-2-amine	0.026036444	0.02381705	0.85034161	0.8771651	1.093185095
487	Serylproline	0.013751579	0.007521383	1.22962497	0.1630603	1.828331094
488	Persicachrome	0.254551148	0.495033468	1.20115959	0.08399644	0.514209977
489	Mangiferdesmethylosanone	0.341585404	0.290000597	0.63930302	0.47011929	1.17787828
490	4-Hydroxy-L-glutamic acid	1.031590439	1.047057287	0.36858332	0.95137259	0.985228269
491	1'-O-Acetylpailline	0.011155567	0.011830318	0.17391147	0.84594483	0.942964218
492	Pterin	1.193161544	1.370529785	0.7843047	0.52806519	0.870584177
493	Theaflavin	1.149887303	1.042047003	0.77517012	0.39115856	1.103488902
494	Isobutyrylglycine	0.434050524	0.709576761	1.12014903	0.13504322	0.611703409
495		0.519971166	0.570821836	0.01056973	0.8185269	0.91091674
496	Camelinin	0.226634035	0.115293023	1.6706045	0.10938059	1.965722023
497	Cohibin B	0.620569466	0.450570391	2.10508745	0.02424703	1.377297484
498	Lysyl-Valine	0.223563364	0.123491371	1.73251238	0.12675455	1.810356157
499	Dehydroascorbic acid	1.156211379	1.585775741	0.95867207	0.46489543	0.729114054
500	Longamide	0.153041556	0.146715897	0.00647394	0.84066089	1.043115022
501	m-Coumaric acid	0.341687682	0.285147872	0.92514985	0.70983073	1.198282422
502	Guanidinosuccinic acid	0.202513608	0.173415545	1.0133692	0.55198925	1.167793851
503	Succinic acid semialdehyde	0.363391578	0.483702672	0.98789702	0.41442825	0.751270562
504		0.797537211	0.452445085	1.13623074	0.10027029	1.762727096
505	PC(22:2(13Z,16Z)/14:0)	14.20645274	18.21828301	0.85738039	0.38623704	0.779790979

506	Petroselinic acid	0.166875051	0.172251442	0.66465135	0.91864518	0.968787544
507	SM(d18:1/16:0)	5.457832168	3.930820841	1.4538518	0.132821	1.388471362
508	PC(22:5(4Z,7Z,10Z,13Z,16Z)/18:0)	1.694333251	1.205964482	1.11338446	0.22066988	1.404961155
509	Sulfolithocholyglycine	0.081420913	0.068653964	0.94688986	0.692342	1.185960849
510	1-Isothiocyanato-7-(methylsulfinyl)heptane	0.050430405	0.075783181	1.2041232	0.2482966	0.665456434
511		0.315387182	0.188918267	1.40462762	0.34851208	1.669437199
512	5',8-Dihydroxy-3',4',7-trimethoxyflavan	0.027856785	0.039005799	1.34442992	0.52039824	0.714170356
513	2-acetyl-1-alkyl-sn-glycero-3-phosphocholine	24.60043986	26.1271158	0.66018186	0.60037867	0.941567376
514	PE(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/18:1(11Z))	1.068010844	1.024675053	0.04725059	0.79701276	1.042292228
515	LysoPE(0:0/18:0)	1.17823367	1.160544298	0.21156153	0.88759105	1.015242307
516	4-Aminobutyraldehyde	1.17707653	0.942654315	1.47233881	0.18803244	1.248683119
517	Hydroxyphenyllactic acid	0.618471159	0.499455437	1.26320594	0.58557972	1.238290974
518	Maltotriose	0.136901088	0.12157866	0.88044046	0.73739151	1.126028924
519		82.07291959	73.25796436	1.02237635	0.71457113	1.120327603
520	PC(22:1(13Z)/14:0)	3.269340734	2.797256137	1.02536432	0.41798272	1.168767025
521	PI(20:4(5Z,8Z,11Z,14Z)/16:0)	0.083457236	0.06079896	1.86975349	0.08326168	1.372675399
522	LysoPC(14:0/0:0)	0.104124275	0.121376836	0.80483158	0.58026046	0.857859529
523	PE(22:4(7Z,10Z,13Z,16Z)/14:0)	2.756917854	2.739837058	0.9913996	0.98329982	1.006234238
524	gamma-L-Glutamyl-L-pipecolic acid	0.015367629	0.011954839	0.42449154	0.57365009	1.285473516
525	N-Acetyl-2,6-diethylaniline	0.141702453	0.131322414	0.15015204	0.72466254	1.079042404
526	Fagomine	0.145275982	0.123814426	0.03078875	0.68559069	1.173336476
527		0.231112175	0.188478018	0.87468724	0.33036889	1.226202279
528	PE(20:0/18:4(6Z,9Z,12Z,15Z))	4.050722028	3.779771998	0.67066885	0.48917039	1.071684226
529	PE(P-18:1(11Z)/18:3(6Z,9Z,12Z))	0.154283679	0.133951051	0.56560776	0.55744295	1.151791476
530	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/15:0)	1.212984244	1.093560607	0.40548899	0.54985306	1.109206236

531	gamma-Glutamylglutamic acid	0.022716468	0.022898899	0.31419252	0.98618341	0.992033204
532	(-)-Dioxibrassinin	0.097732584	0.087925646	0.66193211	0.72014061	1.111536719
533	5-Aminopentanamide	0.072902372	0.067782265	0.50431419	0.66160999	1.075537554
534	Punicic acid	0.047655823	0.059649996	0.45976741	0.65312384	0.798924157
535	N-Acetylmuramate	0.053170831	0.055550074	0.74701815	0.88774888	0.9571694
536	Isotheaflavin	0.954525063	0.773358271	1.20909644	0.17870351	1.23425985
537	LysoPC(16:1(9Z)/0:0)	1.163652625	1.108866286	0.1462797	0.83956739	1.049407525
538	Diethyl tartrate	0.098440632	0.108104164	0.80539802	0.73131606	0.910609071
539	Spinacine	0.036939341	0.030528806	1.17341981	0.22482057	1.209983185
540	L-alpha-Amino-1H-pyrrole-1-hexanoic acid	0.091881788	0.061880014	1.21603598	0.21152012	1.48483787
541	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/20:2(11Z,14Z))	0.160007914	0.172272313	0.56141472	0.72781332	0.928808067
542	PC(22:5(4Z,7Z,10Z,13Z,16Z)/15:0)	0.359027826	0.32106336	1.25727764	0.20412689	1.118246026
543	LysoPC(18:3(6Z,9Z,12Z))	1.370083028	0.959346941	1.27118113	0.21379443	1.428141342
544	2,4-Diisopropyl-5-methylphenol	0.06059731	0.086513305	1.50021491	0.36455183	0.7004392
545	L-prolyl-L-proline	0.053129647	0.060237323	1.02324853	0.67998473	0.882005457
546	1-Deoxy-D-glucitol	1.177917057	1.169220405	0.17494802	0.95818342	1.007437993
547	Glyceraldehyde	6.758380669	8.472430903	0.97210786	0.3698782	0.797690857
548	Prulaurasin	0.068545204	0.030107657	1.68470854	0.1561004	2.276670179
549	Maltotetraose	0.138219913	0.162504338	0.56198822	0.66022005	0.850561378
550	6-Hydroxy-1H-indole-3-acetamide	0.132235315	0.136263956	1.09400173	0.92102796	0.970435018
551	3beta,6beta-Dihydroxynortropane	0.330109311	0.369726208	0.7050861	0.77895622	0.892848015
552	Methylglutaric acid	0.118350543	0.099936484	0.62691747	0.77695158	1.184257622
553	N-Glycolylneuraminic acid	0.054352048	0.045586156	0.5093634	0.72479517	1.192292836
554	PE(P-18:1(11Z)/22:5(4Z,7Z,10Z,13Z,16Z))	0.062523762	0.050007505	1.09934439	0.2896443	1.250287588
555	PC(18:1(11Z)/14:0)	7.623575481	4.319756349	1.28488799	0.20579474	1.764816084
556	1,1'-[1,12-Dodecanediylbis(oxy)]bisbenzene	0.091069045	0.055020705	1.11369428	0.20961056	1.655177714
557	trans-Hexadec-2-enoyl carnitine	0.080074835	0.10888321	0.91510772	0.31031244	0.735419487

558	PE(20:5(5Z,8Z,11Z,14Z,17Z)/18:1(11Z))	7.272866411	4.983806751	2.32388241	0.03276463	1.459299442
559	PC(20:4(8Z,11Z,14Z,17Z)/20:3(5Z,8Z,11Z))	5.977438894	6.526125562	1.03075266	0.37754034	0.915924592
560	PC(16:1(9Z)/14:0)	0.156104498	0.074840602	1.56699982	0.11889356	2.085826323
561	1-(1-Pyrrolidiny)-2-butanone	0.098907637	0.091575597	1.11557894	0.24925179	1.080065436
562		0.221603934	0.123880579	1.39375006	0.06962996	1.788851291
563	Taurochenodesoxycholic acid	0.307926827	0.228280696	0.00069731	0.55251945	1.348895601
564	Prolylglycine	0.04886042	0.031763763	0.912197	0.14013596	1.538244071
565	2-Oxovaleric acid	1.292354278	1.469771974	0.37854555	0.74886558	0.879288965
566	dUMP	0.14613994	0.106060227	1.25838247	0.33134635	1.377895784
567	LysoPC(20:3(5Z,8Z,11Z))	2.664801089	2.233819273	1.14834337	0.37291356	1.192934953
568	Iminoerythrose 4-phosphate	0.12671859	0.083566123	1.19190586	0.23843613	1.516387081
569	PC(20:3(8Z,11Z,14Z)/15:0)	0.739078695	0.7936796	0.61727558	0.58171579	0.931205357
570	Deoxyribose 5-phosphate	0.951173637	1.132995511	0.89510934	0.61985628	0.8395211
571	LysoPE(18:2(9Z,12Z)/0:0)	0.368137	0.452592136	0.83831657	0.35073361	0.81339681
572	N-Acetyl-L-aspartic acid	0.075308871	0.099778467	0.58142945	0.79537374	0.754760758
573	8,9-DiHETrE	0.132465252	0.175121516	0.9088546	0.32270283	0.75641906
574	PC(22:4(7Z,10Z,13Z,16Z)/15:0)	0.805673288	0.689156448	0.11036587	0.68682897	1.169071681
575	Cyclohexanecarboxylic acid	0.032477987	0.029846433	0.0684652	0.82017414	1.088169803
576	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.046446661	0.03882394	0.58529235	0.52921049	1.196340719
577	Hydroxydodecanoic acid	0.14785629	0.10115494	0.67218264	0.43007874	1.461681363
578	Formiminoglutamic acid	0.022695936	0.018375999	0.64474766	0.65936698	1.235085827
579	PE(20:4(8Z,11Z,14Z,17Z)/P-16:0)	0.2938778	0.241473712	1.12162229	0.25648702	1.217017777
580	FAD	0.026413399	0.023037854	0.6528154	0.50514126	1.146521663
581	PC(16:0/14:0)	0.232828991	0.342376346	1.54703232	0.33287978	0.680038191

582	(2S,2'S)- Pyrosaccharopine	0.053109994	0.043468095	1.07170538	0.47690235	1.221815558
583	5-Hydroxyisourate	1.29351051	1.426430542	0.97033616	0.79109035	0.906816331
584	6,10,14-Trimethyl- 5,9,13- pentadecatrien-2-one	0.072304901	0.07206934	0.30317999	0.98395675	1.003268542
585	Guanosine monophosphate	0.140603067	0.078204569	1.41713128	0.10322141	1.797888141
586	2,6-diaminohexanoic acid	0.042859794	0.043864681	0.74351753	0.9521759	0.977091211
587	L-Octanoylcarnitine	0.07346786	0.046046	1.16106833	0.0816036	1.595531868
588	N-Succinyl-L,L-2,6- diaminopimelate	0.037824817	0.023726732	0.3830099	0.33461565	1.594185755
589	PC(18:1(11Z)/14:1(9Z)	1.542199469	1.039636571	1.26518567	0.17404286	1.483402482
590	Nicotinic acid	0.188979284	0.180878897	0.10994171	0.85962391	1.044783487
591	Demethylated antipyrine	0.409281298	0.54989543	2.08335991	0.03620699	0.744289324
592	PS(20:5(5Z,8Z,11Z,1 4Z,17Z)/18:1(9Z))	0.198879851	0.160106779	1.43515783	0.17616251	1.242170086
593	o-Ethyltoluene	0.059196851	0.052511723	1.12366275	0.30247538	1.127307344
594	PE(18:3(6Z,9Z,12Z)/2 2:4(7Z,10Z,13Z,16Z))	1.345863721	1.19964052	0.81503796	0.32476812	1.121889181
595	Indole	0.179265739	0.168439571	0.84652542	0.35925576	1.064273304
596	Lysyl-Alanine	0.063495731	0.082021841	0.43599067	0.51500635	0.774131986
597	1-Methylhistamine	0.304707889	0.197648851	1.19913882	0.28066834	1.541662842
598	PE(20:3(5Z,8Z,11Z)/1 4:0)	0.210866551	0.145973299	0.91754581	0.25102086	1.444555636
599	PC(15:0/16:0)	0.033099833	0.036624699	1.02585765	0.78289464	0.903757123
600	PC(20:2(11Z,14Z)/15: 0)	1.113206563	0.983955185	0.70506839	0.37271065	1.13135901
601	Alpha- Hydroxyisobutyric acid	0.210876895	0.225702855	0.47824198	0.65344384	0.934312039
602	LysoPC(22:6(4Z,7Z,1 0Z,13Z,16Z,19Z))	8.867276512	9.259562259	0.6331175	0.83283296	0.957634526
603	Dyspropterin	0.031090009	0.0160269	1.70192585	0.13174499	1.939864107
604	But-2-enoic acid	0.605735223	0.797535032	1.17820009	0.43628068	0.759509237
605	LysoPC(18:2(9Z,12Z))	20.49848508	14.29561367	1.2575413	0.23443104	1.433900324
606	PI(20:3(5Z,8Z,11Z)/1 8:1(11Z))	0.188969332	0.190114774	0.62200873	0.9906632	0.993974998

607	PC(P-18:1(11Z)/20:3(5Z,8Z,11Z))	0.066959837	0.068199343	0.14276248	0.97091057	0.981825251
608	PC(18:2(9Z,12Z)/15:0)	1.516471824	1.309132552	1.00504149	0.30413842	1.158379128
609	PC(20:1(11Z)/14:1(9Z))	1.069389333	0.893316656	1.42285603	0.11210255	1.19709996
610	CDP-Ethanolamine	0.02897792	0.023252486	1.49506098	0.17913561	1.246228886
611	2-Octyl-4-propylthiazole	0.160073349	0.15246502	0.09866677	0.79317982	1.049902131
612	Octadecanamide	0.10310281	0.119817727	0.43015948	0.70207883	0.860497126
613		0.094985685	0.101564682	0.57161775	0.87769103	0.935223578
614	Succinic anhydride	2.79816968	1.640040869	1.38439124	0.1635584	1.706158507
615	PE(24:1(15Z)/20:5(5Z,8Z,11Z,14Z,17Z))	0.069502447	0.065955347	0.02201257	0.84009937	1.053780317
616	3-Sulfinoalanine	0.105628179	0.105442769	1.06192039	0.99585345	1.001758394
617	stearoyl sphingomyelin	0.195733624	0.152864822	0.87956069	0.38357597	1.280436025
618	($\Delta^{\pm}$)-Metalaxyl	0.045586149	0.039710854	0.32050233	0.84546123	1.147951859
619	LysoPC(17:0)	1.010220606	1.06796806	0.57650778	0.73082916	0.945927733
620	Delphinidin 3-glucoside	0.008390614	0.004175293	0.34816238	0.40889312	2.009586608
621	Oxoglutaric acid	0.097927608	0.09918559	0.39117603	0.95046125	0.987316884
622	Ascorbic acid	0.699992557	0.778140594	0.58538107	0.60028607	0.899570801
623	L-Cystine	0.201955135	0.281514816	1.64284996	0.11801995	0.717387234
624	PC(22:2(13Z,16Z)/15:0)	0.107404372	0.079665739	0.14450334	0.46264032	1.34818773
625	Naphthalene epoxide	1.29634829	1.313670006	0.48647977	0.93370865	0.986814256
626	PE(20:4(8Z,11Z,14Z,17Z)/20:2(11Z,14Z))	1.43639688	1.023869444	1.27165119	0.20451795	1.402910194
627	Tamoxifen N-oxide	0.073317104	0.04932516	0.69074993	0.43572126	1.486403754
628	Thymine	0.03631219	0.039182219	0.59607522	0.51172461	0.926751743
629	SM(d17:1/24:1(15Z))	0.076557175	0.060612603	1.67081567	0.06783366	1.263057033
630	trans-Aconitic acid	0.119099666	0.095034088	0.83453061	0.44703812	1.25323101
631	5H-Cyclopentapyrazine	0.157363608	0.180606492	0.99024822	0.6220808	0.871306488
632		0.945638296	0.662017785	1.04250796	0.41060445	1.428418264
633	Norvaline	0.848651583	1.299764422	1.32420813	0.16555967	0.65292723
634	Ophthalmic acid	0.040741346	0.037868365	0.31763425	0.80696024	1.075867589
635	Malonylcarnitine	0.005919246	0.006288518	0.83813557	0.88477332	0.941278311
636	Phosphodimethylethanolamine	0.108838306	0.064703943	1.17530711	0.23960307	1.682096983
637	PC(20:5(5Z,8Z,11Z,14Z,17Z)/20:1(11Z))	7.02928391	5.149742558	1.09101122	0.31446246	1.364977731

638	PE(18:1(11Z)/18:2(9Z,12Z))	1.054908823	0.842521759	1.16792254	0.22417042	1.252084959
639	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/20:1(11Z))	0.127117615	0.107121343	1.19184829	0.6280878	1.186669354
640	LysoPC(20:4(5Z,8Z,11Z,14Z))	16.03469174	16.36935864	0.53621655	0.92752953	0.979555283
641	PS(18:0/18:4(6Z,9Z,12Z,15Z))	0.206655917	0.163241195	1.39481435	0.20031708	1.265954448
642	3alpha,4,5,7alpha-Tetrahydro-5-hydroxy-1H-isoindole-1,3(2H)-dione	0.026359425	0.02371294	0.20212665	0.78531422	1.111605107
643	Dimethylmalonic acid	0.40883144	0.286458375	1.60767182	0.36292581	1.427193184
644	SM(d18:1/14:0)	0.291783623	0.213535298	0.93300159	0.35068875	1.366442113
645	5,6-Dihydrouridine	0.049129533	0.033086901	0.80426378	0.47324159	1.484863547
646	6-Methylcoumarin	0.216793844	0.208372878	0.55358485	0.64230505	1.040412965
647	PC(18:1(11Z)/15:0)	0.387680263	0.540101464	1.53575295	0.40453115	0.717791542
648	PC(20:0/14:0)	0.672926844	1.685229722	2.0365156	0.08590681	0.399308673
649	o-Xylene	0.056778839	0.053948653	0.7122016	0.61347354	1.052460731
650	L-Aspartic acid	0.870924876	0.66505077	0.90862519	0.44105099	1.309561488
651	5-Aminoimidazole-4-carboxamide	0.076426041	0.076496061	0.87849098	0.99766224	0.999084663
652	Lipoamide	0.327085308	0.309774022	0.77413344	0.91133859	1.055883594
653	PC(22:2(13Z,16Z)/16:0)	0.243859203	0.223702386	0.68744413	0.7955337	1.090105506
654	PE(O-16:1(1Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.138459947	0.131742514	0.45545777	0.6611995	1.050989108
655	Dimethylethanolamine	0.028239786	0.026482243	0.26799218	0.8390953	1.066366835
656		0.592316186	0.366596667	1.14722762	0.09757428	1.615716234
657	8-Hydroxypinoresinol 4-glucoside	3.943844815	2.331256487	1.36819081	0.08607969	1.691724972
658	L-Hexanoylcarnitine	0.359395056	0.300266908	1.17441787	0.46429325	1.196918628
659	Ethyl glucuronide	0.4886953	0.558212006	0.03596387	0.73747212	0.875465406
660	LysoPE(0:0/22:0)	0.325608125	0.2755998	1.20074737	0.57151736	1.18145269
661	Picolinic acid	0.045711746	0.038308388	1.00593085	0.48347124	1.193256859
662	Molybdopterin precursor Z	0.099312361	0.066719225	0.95375672	0.15932211	1.488511921
663	PS(18:0/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.394647273	0.33385098	1.08391869	0.24531801	1.182106079

664	N2-Succinyl-L-glutamic acid 5-semialdehyde	0.094409547	0.124385851	1.64133127	0.11397691	0.759005511
665	Cyclohexylamine	0.046927678	0.040425051	1.63646922	0.13942917	1.160856376
666	p-Cresol sulfate	1.597759564	1.026739802	1.22002107	0.17468353	1.556148462
667	3,7-Dimethyluric acid 1-	0.206547477	0.161141563	1.20971742	0.39634355	1.281776554
668	Arachidonoylglycerophosphoinositol	0.079041278	0.084446565	0.51459602	0.74509359	0.93599162
669	SM(d17:1/24:0)	0.167350845	0.132209459	1.96168848	0.0313545	1.265800842
670	PE(20:2(11Z,14Z)/14:0)	2.174932587	1.670040025	1.31998605	0.17134678	1.30232363
671	Sphingosine	0.547332728	0.552698525	0.18536664	0.94869475	0.990291638
672	PC(20:4(5Z,8Z,11Z,14Z)/20:4(8Z,11Z,14Z,17Z))	2.246570984	1.852738494	1.21331085	0.48093355	1.21256777
673	PC(20:5(5Z,8Z,11Z,14Z,17Z)/20:3(5Z,8Z,11Z))	2.123964629	1.233417322	1.72644969	0.15471432	1.722016216
674	6-(alpha-D-Glucosaminyl)-1D-myo-inositol	0.487614563	0.513197079	0.56838027	0.82078434	0.950150698
675	N-a-Acetylcitrulline	0.020153474	0.03275539	1.09412676	0.32478533	0.615271993
676	N-Carbamoylsarcosine	0.042381569	0.039613548	0.72421129	0.90003106	1.069875615
677	SM(d18:1/20:0)	0.076174514	0.079297532	0.26778191	0.86130569	0.960616457
678	PC(22:4(7Z,10Z,13Z,16Z)/14:0)	0.080764412	0.067873171	1.17113564	0.20011687	1.189931319
679	1-Methyl-2-propylbenzene	44.54689925	46.0609594	0.57873152	0.66718957	0.967129209
680	5-Aminoimidazole ribonucleotide	0.050866482	0.035767114	1.1560394	0.19920416	1.422157839
681	PE(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/18:0)	1.651366973	1.413562796	1.17534236	0.2396832	1.168230359
682	1-Palmitoylglycerophosphoinositol	0.094116365	0.082647337	1.41089299	0.1455063	1.138770692
683	PC(20:3(8Z,11Z,14Z)/14:0)	0.01655561	0.016430926	0.16951239	0.97748662	1.007588348
684	Capric acid	6.620462965	5.743040587	1.20390717	0.67470876	1.152780111
685	PC(22:5(7Z,10Z,13Z,16Z,19Z)/16:1(9Z))	1.723771732	1.274290978	1.10410621	0.24486092	1.352730077
686	SM(d16:1/24:1(15Z))	42.49560294	44.29967397	0.61628625	0.62256947	0.959275749
687		0.102330981	0.076236347	1.42689829	0.14828735	1.342286004

688	Monomethyl glutaric acid	0.299119521	0.185996704	0.36163174	0.51984871	1.608197971
689	SM(d18:1/22:0)	0.338103245	0.286897609	1.31613101	0.19890719	1.178480526
690	PC(22:2(13Z,16Z)/14:1(9Z))	16.60771228	15.63877007	0.85868187	0.43030754	1.061957699
691	1-nitrosonaphthalene	0.256063534	0.333678443	1.51142588	0.15334498	0.767396094
692	PE(16:1(9Z)/22:5(4Z,7Z,10Z,13Z,16Z))	4.296228674	3.765513281	0.89384812	0.33610285	1.14094105
693	PC(22:4(7Z,10Z,13Z,16Z)/16:0)	14.77219248	12.05809406	0.11011116	0.62869148	1.225085192
694	PE(14:1(9Z)/18:0)	0.088984288	0.050968728	1.40831479	0.1701721	1.745860469
695	PE(16:0/18:2(9Z,12Z))	1.468464551	1.408778861	0.35852746	0.77501825	1.042366969
696	Methylimidazoleacetic acid	0.23751199	0.188643313	0.86208986	0.42684079	1.259053327
697	PC(22:1(13Z)/14:1(9Z))	15.98656594	14.12542612	0.83307825	0.43898966	1.131758137
698	L-Theanine	0.035112977	0.040125492	0.132738	0.77746179	0.875079027
699	PC(18:3(6Z,9Z,12Z)/18:0)	29.1305827	22.12804066	1.32210919	0.23981125	1.316455585
700	4,7-Dihydro-5-(4-methyl-3-pentenyl)-1,2,3-trithiepin	0.067044858	0.110422613	0.91527387	0.34004079	0.607166016
701	Thiomorpholine 3-carboxylate	0.211560525	0.212710172	0.34045874	0.97275828	0.994595238
702	D-2,3-Dihydroxypropanoic acid	0.233444204	0.252830622	1.038519	0.79071435	0.923322508
703	3,4,5-Trimethoxycinnamic acid	0.356132519	0.255231665	1.6220928	0.09523704	1.395330472
704	(2S,4S)-Pinnatanine	0.025092146	0.05809326	1.77837598	0.06705989	0.431928698
705	LysoPC(16:0)	34.66847208	30.29523223	0.31576229	0.73504455	1.144354062
706	3-Methylxanthine	0.278310994	0.262731025	0.29219562	0.81170277	1.059300075
707	PE(18:0/22:6(4Z,7Z,10Z,13Z,16Z,19Z))	0.044620758	0.054831758	1.02943259	0.4441833	0.813775818
708	Sedoheptulose	2.23126856	2.568347932	0.51436978	0.58900172	0.868756344
709	D-Glycero-D-galacto-heptitol	0.024106855	0.032368455	0.80037391	0.3614511	0.744763844
710	2-Amino-4-oxo-6-(1',2'-dioxopropyl)-7,8-dihydroxypteridine	0.049764235	0.062221169	1.44173368	0.60939776	0.799795886
711	Isowillardine	0.99481264	1.136312784	0.99364305	0.66405182	0.875474301

712	PC(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/16:0)	44.04627729	31.95759132	1.09209945	0.20961858	1.378272751
713	(R)-Dihydromaleimide	0.189222189	0.152250168	0.04950115	0.57512716	1.242837304
714	N(6)-(1,2-dicarboxyethyl)AMP	0.043570693	0.047253289	0.35099389	0.84916173	0.922066874
715	PE(14:0/22:5(4Z,7Z,10Z,13Z,16Z))	0.255249586	0.201230091	1.08761871	0.27979185	1.268446407
716	N-trans-Feruloyl-4-O-methyl-dopamine	0.027750309	0.029124116	0.96976039	0.87858873	0.952829222
717	1-(sn-Glycero-3-phospho)-1D-myo-inositol	0.021305705	0.022674127	0.12144194	0.8599334	0.939648341
718	Kojibiose	0.02396528	0.020395398	0.56866907	0.69724647	1.175033706
719	Alanyl-Arginine	0.050729148	0.050012406	1.15104398	0.97234741	1.01433127
720	1,4-Benzodioxin-2(3H)-one	0.057238909	0.088265499	0.83619773	0.3576212	0.648485649
721	N8-Acetylspermidine	0.037365584	0.040086644	0.47122294	0.87698819	0.932120541
722	Leucyl-Hydroxyproline	0.040353016	0.01716459	1.602579	0.18945776	2.350945507
723	N-methyl-L-glutamic Acid	0.790240837	0.870035384	0.91100211	0.50298194	0.90828586
724	PS(22:4(7Z,10Z,13Z,16Z)/18:1(9Z))	0.031401465	0.047798505	1.49446302	0.31845935	0.656954964
725	PS(18:0/20:4(5Z,8Z,11Z,14Z))	0.556486567	0.512666218	0.33736623	0.6970678	1.085475399
726	Phenylacetyl-glycine	0.144771672	0.146542636	0.85165619	0.97111764	0.987915027
727	PC(18:1(11Z)/20:2(11Z,14Z))	2.622706797	2.358595792	0.64348259	0.65753516	1.111978071
728	LysoPI(18:0/0:0)	0.055159651	0.054229339	1.08843461	0.95532226	1.017155147
729	D-Arginine	0.035163534	0.028397415	1.20822391	0.43564198	1.238265312
730	4-beta-Hydroxymethyl-4-alpha-methyl-5-alpha-cholest-7-en-3-beta-ol	0.33857607	0.27600651	2.17164762	0.0168379	1.22669596
731	Serylthreonine	0.021066344	0.01180621	1.34257052	0.26223717	1.78434425
732		0.065632353	0.058166949	0.7459404	0.57137764	1.128344417
733	Isocitric acid	1.018971775	1.317300077	1.61936573	0.09597009	0.773530491
734	Cytidine	0.876972971	0.966120268	0.67111183	0.81257656	0.907726501
735	Piperidine	0.510184142	0.504764431	0.02980778	0.97004176	1.010737111
736	Urocanic acid	0.257980645	0.251950283	0.20492209	0.95013122	1.023934729
737	Vaccenyl carnitine	0.58006448	0.790459783	0.89469393	0.26825564	0.733831742
738	SM(d18:0/16:0)	0.178643798	0.137630817	1.32845804	0.19393015	1.297992714
739	Vulgaxanthin II	0.00384174	0.002333016	0.30696663	0.59651036	1.646683743
740	2-Methylbenzoic acid	0.206031149	0.130199161	1.19593058	0.08753019	1.582430695

741	5,8,11-Eicosatrienoic acid	4.662869331	5.370635511	0.45711421	0.51548133	0.868215563
742		0.019860079	0.02984783	1.3205548	0.29606291	0.665377638
743	beta-D-Glucosamine	1.420679521	1.214649914	0.54009081	0.53525035	1.169620567
744	Hexylresorcinol	0.239599606	0.248470712	0.05381245	0.93614895	0.964297177
745	Beta-D-Galactose	0.250363686	0.303599857	1.48935166	0.18541644	0.824650212
746	Glucosylceramide (d18:1/16:0)	0.139690193	0.151439125	0.11536047	0.722523	0.922418118
747	Caffeoyl aspartic acid	0.015345092	0.020905715	1.35457131	0.24289928	0.734014238
748	Piperolein B	0.063569443	0.006575599	2.32153638	0.03970458	9.667475652
749		0.339545704	0.479807776	0.94013019	0.22574346	0.707670281
	(5alpha,8beta,9beta)-					
750	5,9-Epoxy-3,6-megastigmadien-8-ol	0.360299689	0.360328443	0.96296567	0.99977024	0.9999202
	(2E)-3-(2-					
751	hydroxyphenyl)-1-(4-methoxyphenyl)prop-2-en-1-one	0.022315455	0.032489726	0.44129008	0.62500127	0.686846504
752		1.57601084	2.057587602	0.74109379	0.39070315	0.765950785
753	D-Glucurono-6,3-lactone	0.238023326	0.294254703	0.97158662	0.51112638	0.808902369
754	Paraxanthine	0.565623442	0.536544173	0.62034296	0.87272262	1.054197344
755	Normetanephine	0.098877426	0.103388599	0.54894994	0.56759459	0.956366819
756	Ethiin	0.049998222	0.057236363	0.00799197	0.78601539	0.87353947

Supplementary Tab 6: Oligonucleotides

SIRT4 qPCR Primers(mouse): Fwd-GATTGACTTTCAGGCCGACAA Rev-GCGGCACAAATAACCCCGA	This Work
β -Actin qPCR Primers(mouse): Fwd-CCGCCCTAGACATCAGGGT Rev-TCTTCTGGTGCTACTCGAAGC	This Work
SIRT4 qPCR Primers(human): Fwd-CAAGTCCGGAGCTTTCAGGT Rev-TGCAAGGATGATCCCACCAC	This Work
β -Actin qPCR Primers(human): Fwd- GCCGACAGGATGCAGAAGGAGATCA Rev-AAGCATTGCGGTGGACGATGGA	This Work
Eif2 α siRNA Primers(mouse): 5'-GCCUAACCUACAACUUUAUTT-3'	This Work
ATF4 siRNA Primers(mouse): 5'-GCUGCUUACAUUACUCUAATT-3'	This Work
OTC siRNA Primers(mouse): 5'-GGGAAAGAGAAGAAUUUAATT-3'	This Work
OTC siRNA Primers(human): 5'-GACUCACAUAGUCCAUAUAUTT -3'	This Work
Mice genotyping Primers(mouse): Fwd-ATCAAAGCTGCACCACCACTG Rev-TCTGGTGTTCTGTCTTGACACGC Fwd-TTGCAGACATACCGGAAGAAGG Rev-TTCAGGCAAGCCAAATCGTCAG	This Work