

BIOCHEMICAL	zscore
sphingosine	3.196182684
isocitrate	2.293294308
homoarginine	2.169030493
creatinine	1.912943914
N-acetylleucine	1.817411277
3-methoxytyramine sulfate	1.650947537
phosphate	1.624114961
dimethyl sulfone	1.610449794
2-hydroxyadipate	1.605101961
dehydroepiandrosterone sulfate (DHEA-S)	1.569090667
beta-hydroxyisovalerate	1.453610767
fructose	1.451451968
ribitol	1.371657695
alpha-hydroxyisocaproate	1.358116575
N-acetylasparagine	1.312122328
N-acetylisoleucine	1.290683286
trigonelline (N'-methylnicotinate)	1.286950499
urate	1.200131614
phenylacetylglutamine	1.14311539
3-carboxy-4-methyl-5-propyl-2-furanpropanoate (CMPF)	1.126061059
androstenediol (3beta,17beta) disulfate (1)	1.110590546
p-cresol sulfate	1.08997526
spermidine	1.061191296
3-hydroxy-2-ethylpropionate	1.051809299
N-acetyl-3-methylhistidine*	1.026125258
1-methylhistidine	0.999860469
nicotinamide riboside	0.991475385
tryptophan betaine	0.981555973
3-methyl-2-oxobutyrate	0.961139634
imidazole lactate	0.955415223
N6-succinyladenosine	0.922772344
inosine	0.918963444
S-adenosylhomocysteine (SAH)	0.917201777
7-alpha-hydroxy-3-oxo-4-cholestenoate (7-Hoca)	0.905038013
N6-carbamoylthreonyladenosine	0.901351283
4-methyl-2-oxopentanoate	0.900163956
phenol sulfate	0.895634379
catechol sulfate	0.888697936
N-formylmethionine	0.883181042
N-acetyl glycine	0.849571206
3-methyl-2-oxovalerate	0.846735413
N-acetylvaline	0.845346181
N-acetylglutamine	0.833885969
N2-methylguanosine	0.830392642
pipecolate	0.823379037
pyroglutamine*	0.803705466
behenoyl sphingomyelin (d18:1/22:0)*	0.790858718
S-1-pyrroline-5-carboxylate	0.78963608
dihomo-linolenate (20:3n3 or n6)	0.776451331

2,3-dihydroxyisovalerate	0.77145439
3-indoxyl sulfate	0.764540165
isovalerylcarnitine (C5)	0.757242099
3-methylhistidine	0.747523451
acisoga	0.742592537
stachydrine	0.738906955
bilirubin (E,E)*	0.725372028
alpha-hydroxyisovalerate	0.713458196
urea	0.698589408
picolinate	0.668745666
N-acetylalanine	0.662039938
mannose	0.660540199
erythritol	0.653529472
N1-Methyl-2-pyridone-5-carboxamide	0.647825199
1-(1-enyl-palmitoyl)-2-oleoyl-GPC (P-16:0/18:1)*	0.644873759
salicylate	0.633961091
N2,N2-dimethylguanosine	0.626824693
cytidine	0.603171242
N-acetylputrescine	0.593638396
arabitol/xylitol	0.593162879
dopamine 3-O-sulfate	0.575288491
taurine	0.56740618
5-hydroxyhexanoate	0.564056273
trimethylamine N-oxide	0.545734492
sphingomyelin (d18:1/24:1, d18:2/24:0)*	0.542614676
octanoylcarnitine (C8)	0.5137169
1-palmitoylglycerol (16:0)	0.511398384
pyruvate	0.508474869
orotidine	0.471388986
choline	0.471362468
3-hydroxyisobutyrate	0.468297666
2-hydroxy-3-methylvalerate	0.45385958
1-stearoyl-2-docosahexaenoyl-GPE (18:0/22:6)*	0.436010948
2-hydroxybutyrate/2-hydroxyisobutyrate	0.434021938
isobutyrylcarnitine (C4)	0.426317304
dimethylglycine	0.423869124
orotate	0.420368416
glycerol 3-phosphate	0.393518702
glutaryl carnitine (C5-DC)	0.392707933
2-oxoadipate	0.392683371
phenyllactate (PLA)	0.384143111
creatine	0.38383669
aconitate [cis or trans]	0.373308164
lysine	0.354258615
uridine	0.336698498
hypoxanthine	0.332357157
propionyl carnitine (C3)	0.323563314
lidocaine	0.314305068
sphingomyelin (d18:1/20:0, d16:1/22:0)*	0.311646884
allantoin	0.310511824

acetoacetate	0.304229944
N-acetylserine	0.303900497
cholesterol	0.297876847
1-palmityl-2-oleoyl-GPC (O-16:0/18:1)*	0.281376295
N-acetylphenylalanine	0.279795717
citrate	0.268756273
glycerophosphoinositol*	0.260675045
sphingomyelin (d18:1/14:0, d16:1/16:0)*	0.25401063
5-methyltetrahydrofolate (5MeTHF)	0.235351276
nicotinamide	0.23412943
N-acetylglutamate	0.233537024
2'-deoxycytidine	0.222556447
lactate	0.218815116
N-delta-acetylornithine	0.216153006
sphingomyelin (d18:1/18:1, d18:2/18:0)	0.19802193
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPC (P-16:0/20:4)*	0.194296878
adenosine	0.192560425
palmitoyl sphingomyelin (d18:1/16:0)	0.19245523
N-acetylmethionine	0.190491809
succinylcarnitine (C4-DC)	0.183313485
deoxycarnitine	0.182541062
glycine	0.174151121
1-palmityl-2-arachidonoyl-GPC (O-16:0/20:4)*	0.172893524
tiglylcarnitine (C5:1-DC)	0.172211183
stearoyl sphingomyelin (d18:1/18:0)	0.168532807
sulfate*	0.166098961
guanosine	0.146489833
3-methylglutaryl carnitine (2)	0.141265288
4-acetamidobutanoate	0.132120142
1-stearoyl-2-dihomo-linolenoyl-GPC (18:0/20:3n3 or 6)*	0.111640103
glutamine	0.108531754
1-palmitoyl-2-adrenoyl-GPC (16:0/22:4)*	0.103696961
5alpha-pregnan-3beta,20alpha-diol disulfate	0.1
carnitine	0.097404403
dihomo-linoleate (20:2n6)	0.080521924
mannitol/sorbitol	0.071360102
sphingomyelin (d18:2/16:0, d18:1/16:1)*	0.071246136
N-acetylarginine	0.070041075
O-sulfo-L-tyrosine	0.064946444
glutamate, gamma-methyl ester	0.063557423
2-hydroxydecanoate	0.057554247
butyrylcarnitine (C4)	0.055806957
3-hydroxybutyrate (BHBA)	0.053314859
2-methylbutyrylcarnitine (C5)	0.049217781
5-methyluridine (ribothymidine)	0.040956702
N-acetyl-beta-alanine	0.037028106
aspartate	0.024689566
3-hydroxyoctanoate	0.019225594
methylsuccinoylcarnitine	0.0059297
isoleucine	-0.003633005

C-glycosyltryptophan	-0.00862718
7-methylguanine	-0.009388262
pantothenate	-0.012929614
pseudouridine	-0.014022822
1-palmitoyl-2-arachidonoyl-GPC (16:0/20:4n6)	-0.023052444
xanthosine	-0.025413538
3-methylglutaconate	-0.02545564
1-myristoyl-2-palmitoyl-GPC (14:0/16:0)	-0.033804548
phenylalanine	-0.040102593
valine	-0.044295241
citrulline	-0.051663596
glucuronate	-0.057447356
6-oxopiperidine-2-carboxylate	-0.060018519
phosphoethanolamine	-0.079314283
N-acetylglucosaminylasparagine	-0.102985868
leucine	-0.104438234
1-stearoyl-2-arachidonoyl-GPC (18:0/20:4)	-0.105544423
bilirubin (Z,Z)	-0.114143557
1-palmitoyl-2-oleoyl-GPC (16:0/18:1)	-0.117039071
galactonate	-0.119438892
methionine	-0.120474308
1,2-dioleoyl-GPC (18:1/18:1)	-0.144560674
1-stearoyl-2-oleoyl-GPC (18:0/18:1)	-0.145607729
1-stearoyl-2-docosahexaenoyl-GPC (18:0/22:6)	-0.151218084
erythronate*	-0.163423988
N-acetylthreonine	-0.163596033
arabonate/xylonate	-0.167668407
methylmalonate (MMA)	-0.173863318
1-palmitoyl-2-dihomo-linolenoyl-GPC (16:0/20:3n3 or 6)*	-0.182467741
N-acetylneuraminic acid	-0.186100182
dimethylarginine (SDMA + ADMA)	-0.196773066
1,2-dipalmitoyl-GPC (16:0/16:0)	-0.205784678
acetylcarnitine (C2)	-0.212759832
N-acetylhistidine	-0.212977839
ornithine	-0.221208011
1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)*	-0.222258373
indoleacetate	-0.244129138
3-ureidopropionate	-0.26305148
1-(1-enyl-stearoyl)-2-docosahexaenoyl-GPE (P-18:0/22:6)*	-0.287521485
methionine sulfone	-0.288546539
5-methylthioadenosine (MTA)	-0.28874055
tryptophan	-0.292915649
1-stearoyl-2-linoleoyl-GPC (18:0/18:2)*	-0.312073093
asparagine	-0.318640783
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPE (P-16:0/20:4)*	-0.334612758
1-oleoyl-2-linoleoyl-GPC (18:1/18:2)*	-0.365364827
1-palmitoyl-2-linoleoyl-GPC (16:0/18:2)	-0.376666069
1-methylnicotinamide	-0.3818196
succinamic acid	-0.390140865
gluconate	-0.390647894

N1-methyladenosine	-0.402878078
choline phosphate	-0.404538137
1,3-propanediol	-0.406513834
cysteine	-0.416342573
sucrose	-0.419796468
1-methyl-4-imidazoleacetate	-0.428811931
ribonate	-0.430438843
1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4)*	-0.431921855
glucose	-0.43579414
2-aminobutyrate	-0.447827309
1-(1-enyl-palmitoyl)-2-docosaheptaenoyl-GPE (P-16:0/22:6)*	-0.455833423
1,5-anhydroglucitol (1,5-AG)	-0.456275121
anthranilate	-0.456711996
galactitol (dulcitol)	-0.478928546
kynurenate	-0.500371108
2'-deoxyuridine	-0.505414414
kynurenine	-0.506769908
cis-4-decenoylcarnitine (C10:1)	-0.535390336
ethylmalonate	-0.574611193
xanthine	-0.591803553
argininosuccinate	-0.599113576
pyridoxal	-0.60738315
5-oxoproline	-0.624921389
betaine	-0.658899986
N6,N6,N6-trimethyllysine	-0.671169323
alpha-ketoglutarate	-0.671519195
hippurate	-0.675000644
beta-hydroxyisovaleroylcarnitine	-0.687835361
3-hydroxy-3-methylglutarate	-0.739282917
3-(4-hydroxyphenyl)lactate	-0.764110907
alanine	-0.776456587
myo-inositol	-0.794154378
2-piperidinone	-0.81095547
5,6-dihydrothymine	-0.81699694
1-oleoyl-GPC (18:1)	-0.824233532
malonate	-0.85467407
glutamate	-0.860731898
2-methylcitrate	-0.870958093
succinate	-0.907442819
maleate	-0.924369834
threonate	-0.926433244
pyridoxate	-0.95231917
tartarate	-0.954884
threonine	-0.959417716
tartronate (hydroxymalonate)	-0.973116753
3-methoxytyrosine	-1.005109166
citramalate	-1.015885306
proline	-1.028132588
glycerol	-1.059922988
trans-4-hydroxyproline	-1.061312638

gulonate*	-1.065746545
dimethylmalonic acid	-1.079518427
tyrosine	-1.169479885
1-stearoyl-GPC (18:0)	-1.177211068
glycerate	-1.202282795
methionine sulfoxide	-1.247251482
isovalerate (i5:0)	-1.251178292
adenine	-1.265140187
malate	-1.268342019
arginine	-1.270500092
serine	-1.316200721
uracil	-1.326198804
N-acetyl-aspartyl-glutamate (NAAG)	-1.333747042
1-palmitoyl-GPC (16:0)	-1.358464356
carboxyethyl-GABA	-1.359609408
homovanillate (HVA)	-1.366187052
histidine	-1.404231999
homocarnosine	-1.562172137
N-acetyltaurine	-1.625263475
4-guanidinobutanoate	-1.650932518
N-acetylaspartate (NAA)	-1.822523265
methylsuccinate	-1.854821214
oxalate (ethanedioate)	-2.058090147

SUPER_PATHWAY	SUB_PATHWAY	HMDB_ID
Lipid	Sphingolipid Metabolism	HMDB00252
Energy	TCA Cycle	HMDB00193
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00670
Amino Acid	Creatine Metabolism	HMDB00562
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB11756
Amino Acid	Phenylalanine and Tyrosine Metabolism	NA
Energy	Oxidative Phosphorylation	HMDB01429
Xenobiotics	Chemical	HMDB04983
Lipid	Fatty Acid, Dicarboxylate	HMDB00321
Lipid	Steroid	HMDB01032
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00754
Carbohydrate	Fructose, Mannose and Galactose Metabolism	HMDB00660
Carbohydrate	Pentose Metabolism	HMDB00508
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00746
Amino Acid	Alanine and Aspartate Metabolism	HMDB06028
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB61684
Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	HMDB00875
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00289
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB06344
Lipid	Fatty Acid, Dicarboxylate	HMDB61112
Lipid	Steroid	HMDB03818
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB11635
Amino Acid	Polyamine Metabolism	HMDB01257
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00396
Amino Acid	Histidine Metabolism	NA
Amino Acid	Histidine Metabolism	HMDB00001
Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	HMDB00855
Amino Acid	Tryptophan Metabolism	HMDB61115
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00019
Amino Acid	Histidine Metabolism	HMDB02320
Nucleotide	Purine Metabolism, Adenine containing	HMDB00912
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00195
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB00939
Lipid	Sterol	HMDB12458
Nucleotide	Purine Metabolism, Adenine containing	HMDB41623
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00695
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB60015
Xenobiotics	Benzoate Metabolism	HMDB59724
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB01015
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00532
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB03736
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB11757
Amino Acid	Glutamate Metabolism	HMDB06029
Nucleotide	Purine Metabolism, Guanine containing	HMDB05862
Amino Acid	Lysine Metabolism	HMDB00070
Amino Acid	Glutamate Metabolism	NA
Lipid	Sphingolipid Metabolism	HMDB12103
Amino Acid	Glutamate Metabolism	HMDB01301
Lipid	Polyunsaturated Fatty Acid (n3 and n6)	HMDB02925

Xenobiotics	Food Component/Plant	HMDB12141
Amino Acid	Tryptophan Metabolism	HMDB00682
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00688
Amino Acid	Histidine Metabolism	HMDB00479
Amino Acid	Polyamine Metabolism	NA
Xenobiotics	Food Component/Plant	HMDB04827
Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism	NA
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00407
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00294
Amino Acid	Tryptophan Metabolism	HMDB02243
Amino Acid	Alanine and Aspartate Metabolism	HMDB00766
Carbohydrate	Fructose, Mannose and Galactose Metabolism	HMDB00169
Xenobiotics	Food Component/Plant	HMDB02994
Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	HMDB04193
Lipid	Plasmalogen	NA
Xenobiotics	Drug	HMDB01895
Nucleotide	Purine Metabolism, Guanine containing	HMDB04824
Nucleotide	Pyrimidine Metabolism, Cytidine containing	HMDB00089
Amino Acid	Polyamine Metabolism	HMDB02064
Carbohydrate	Pentose Metabolism	NA
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB06275
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB00251
Lipid	Fatty Acid, Monohydroxy	HMDB00525
Lipid	Phospholipid Metabolism	HMDB00925
Lipid	Sphingolipid Metabolism	HMDB12107
Lipid	Fatty Acid Metabolism(Acyl Carnitine)	HMDB00791
Lipid	Monoacylglycerol	HMDB31074
Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	HMDB00243
Nucleotide	Pyrimidine Metabolism, Orotate containing	HMDB00788
Lipid	Phospholipid Metabolism	HMDB00097
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00336
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00317
Lipid	Phospholipid Metabolism	HMDB05334
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	NA
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00736
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00092
Nucleotide	Pyrimidine Metabolism, Orotate containing	HMDB00226
Lipid	Glycerolipid Metabolism	HMDB00126
Amino Acid	Lysine Metabolism	HMDB13130
Amino Acid	Lysine Metabolism	HMDB00225
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00779
Amino Acid	Creatine Metabolism	HMDB00064
Energy	TCA Cycle	NA
Amino Acid	Lysine Metabolism	HMDB00182
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00296
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00157
Lipid	Fatty Acid Metabolism (also BCAA Metabolism)	HMDB00824
Xenobiotics	Drug	HMDB14426
Lipid	Sphingolipid Metabolism	HMDB12102
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00462

Lipid	Ketone Bodies	HMDB00060
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB02931
Lipid	Sterol	HMDB00067
Lipid	Phospholipid Metabolism	NA
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00512
Energy	TCA Cycle	HMDB00094
Lipid	Phospholipid Metabolism	NA
Lipid	Sphingolipid Metabolism	HMDB12097
Cofactors and Vitamins	Folate Metabolism	HMDB01396
Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	HMDB01406
Amino Acid	Glutamate Metabolism	HMDB01138
Nucleotide	Pyrimidine Metabolism, Cytidine containing	HMDB00014
Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	HMDB00190
Amino Acid	Urea cycle; Arginine and Proline Metabolism	NA
Lipid	Sphingolipid Metabolism	HMDB12101
Lipid	Plasmalogen	HMDB11220
Nucleotide	Purine Metabolism, Adenine containing	HMDB00050
Lipid	Sphingolipid Metabolism	NA
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB11745
Energy	TCA Cycle	HMDB61717
Lipid	Carnitine Metabolism	HMDB01161
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00123
Lipid	Phospholipid Metabolism	NA
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB02366
Lipid	Sphingolipid Metabolism	HMDB01348
Xenobiotics	Chemical	HMDB01448
Nucleotide	Purine Metabolism, Guanine containing	HMDB00133
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00552
Amino Acid	Polyamine Metabolism	HMDB03681
Lipid	Phospholipid Metabolism	HMDB08047
Amino Acid	Glutamate Metabolism	HMDB00641
Lipid	Phospholipid Metabolism	HMDB07988
Lipid	Steroid	NA
Lipid	Carnitine Metabolism	HMDB00062
Lipid	Polyunsaturated Fatty Acid (n3 and n6)	HMDB05060
Carbohydrate	Fructose, Mannose and Galactose Metabolism	HMDB00247
Lipid	Sphingolipid Metabolism	NA
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB04620
Xenobiotics	Chemical	NA
Amino Acid	Glutamate Metabolism	HMDB61715
Lipid	Fatty Acid, Monohydroxy	NA
Lipid	Fatty Acid Metabolism (also BCAA Metabolism)	HMDB02013
Lipid	Ketone Bodies	HMDB00357
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00378
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00884
Nucleotide	Pyrimidine Metabolism, Uracil containing	NA
Amino Acid	Alanine and Aspartate Metabolism	HMDB00191
Lipid	Fatty Acid, Monohydroxy	HMDB01954
Amino Acid	Leucine, Isoleucine and Valine Metabolism	NA
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00172

Amino Acid	Tryptophan Metabolism	NA
Nucleotide	Purine Metabolism, Guanine containing	HMDB00897
Cofactors and Vitamins	Pantothenate and CoA Metabolism	HMDB00210
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00767
Lipid	Phospholipid Metabolism	HMDB07982
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00299
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00522
Lipid	Phospholipid Metabolism	HMDB07869
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00159
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00883
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00904
Carbohydrate	Aminosugar Metabolism	HMDB00127
Amino Acid	Lysine Metabolism	HMDB61705
Lipid	Phospholipid Metabolism	HMDB00224
Carbohydrate	Aminosugar Metabolism	HMDB00489
Amino Acid	Leucine, Isoleucine and Valine Metabolism	NA
Lipid	Phospholipid Metabolism	HMDB08048
Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism	HMDB00054
Lipid	Phospholipid Metabolism	HMDB07972
Carbohydrate	Fructose, Mannose and Galactose Metabolism	HMDB00565
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB00696
Lipid	Phospholipid Metabolism	NA
Lipid	Phospholipid Metabolism	HMDB08038
Lipid	Phospholipid Metabolism	NA
Carbohydrate	Aminosugar Metabolism	HMDB00613
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB62557
Carbohydrate	Pentose Metabolism	NA
Lipid	Fatty Acid Metabolism (also BCAA Metabolism)	HMDB00202
Lipid	Phospholipid Metabolism	NA
Carbohydrate	Aminosugar Metabolism	HMDB00230
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB01539
Lipid	Phospholipid Metabolism	HMDB00564
Lipid	Fatty Acid Metabolism(Acyl Carnitine)	HMDB00201
Amino Acid	Histidine Metabolism	HMDB32055
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB03374
Lipid	Phospholipid Metabolism	NA
Amino Acid	Tryptophan Metabolism	HMDB00197
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00026
Lipid	Plasmalogen	HMDB11394
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	NA
Amino Acid	Polyamine Metabolism	HMDB01173
Amino Acid	Tryptophan Metabolism	HMDB00929
Lipid	Phospholipid Metabolism	NA
Amino Acid	Alanine and Aspartate Metabolism	HMDB00168
Lipid	Plasmalogen	HMDB11352
Lipid	Phospholipid Metabolism	NA
Lipid	Phospholipid Metabolism	HMDB07973
Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	HMDB00699
Xenobiotics	Chemical	NA
Xenobiotics	Food Component/Plant	HMDB00625

Nucleotide	Purine Metabolism, Adenine containing	HMDB03331
Lipid	Phospholipid Metabolism	HMDB01565
Xenobiotics	Chemical	NA
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB00574
Carbohydrate	Disaccharides and Oligosaccharides	HMDB00258
Amino Acid	Histidine Metabolism	HMDB02820
Carbohydrate	Pentose Metabolism	HMDB00867
Lipid	Plasmalogen	HMDB05779
Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	HMDB00122
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB00650
Lipid	Plasmalogen	HMDB05780
Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	HMDB02712
Amino Acid	Tryptophan Metabolism	HMDB01123
Carbohydrate	Fructose, Mannose and Galactose Metabolism	HMDB00107
Amino Acid	Tryptophan Metabolism	HMDB00715
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00012
Amino Acid	Tryptophan Metabolism	HMDB00684
Lipid	Fatty Acid Metabolism(Acyl Carnitine)	NA
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00622
Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	HMDB00292
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00052
Cofactors and Vitamins	Vitamin B6 Metabolism	HMDB01545
Amino Acid	Glutathione Metabolism	HMDB00267
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00043
Amino Acid	Lysine Metabolism	HMDB01325
Energy	TCA Cycle	HMDB00208
Xenobiotics	Benzoate Metabolism	HMDB00714
Amino Acid	Leucine, Isoleucine and Valine Metabolism	NA
Lipid	Mevalonate Metabolism	HMDB00355
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00755
Amino Acid	Alanine and Aspartate Metabolism	HMDB00161
Lipid	Inositol Metabolism	HMDB00211
Xenobiotics	Food Component/Plant	HMDB11749
Nucleotide	Pyrimidine Metabolism, Thymine containing	HMDB00079
Lipid	Lysolipid	HMDB02815
Lipid	Fatty Acid Synthesis	HMDB00691
Amino Acid	Glutamate Metabolism	HMDB00148
Energy	TCA Cycle	HMDB00379
Energy	TCA Cycle	HMDB00254
Lipid	Fatty Acid, Dicarboxylate	HMDB00176
Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	HMDB00943
Cofactors and Vitamins	Vitamin B6 Metabolism	HMDB00017
Xenobiotics	Food Component/Plant	HMDB00956
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00167
Xenobiotics	Bacterial/Fungal	HMDB35227
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB01434
Amino Acid	Glutamate Metabolism	HMDB00426
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00162
Lipid	Glycerolipid Metabolism	HMDB00131
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00725

Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	HMDB03290
Lipid	Fatty Acid, Dicarboxylate	HMDB02001
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00158
Lipid	Lysolipid	HMDB10384
Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	HMDB00139
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	HMDB02005
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB00718
Nucleotide	Purine Metabolism, Adenine containing	HMDB00034
Energy	TCA Cycle	HMDB00156
Amino Acid	Urea cycle; Arginine and Proline Metabolism	HMDB00517
Amino Acid	Glycine, Serine and Threonine Metabolism	HMDB00187
Nucleotide	Pyrimidine Metabolism, Uracil containing	HMDB00300
Amino Acid	Glutamate Metabolism	HMDB01067
Lipid	Lysolipid	HMDB10382
Amino Acid	Glutamate Metabolism	HMDB02201
Amino Acid	Phenylalanine and Tyrosine Metabolism	HMDB00118
Amino Acid	Histidine Metabolism	HMDB00177
Peptide	Dipeptide Derivative	HMDB00745
Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	NA
Amino Acid	Guanidino and Acetamido Metabolism	HMDB03464
Amino Acid	Alanine and Aspartate Metabolism	HMDB00812
Amino Acid	Leucine, Isoleucine and Valine Metabolism	HMDB01844
Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	HMDB02329