

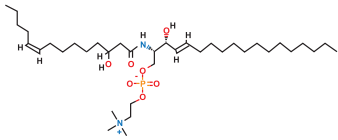
Metabolite Portfolio

Version: 1-2018

The choice is yours. Biocrates offers the technology to detect and quantify over 800 metabolites.

Sphingomyelins (56)

Signaling cascades, membrane damage

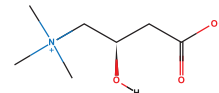


SM C14:0



(Acyl-)Carnitines (55)

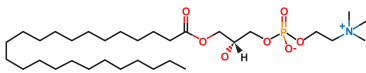
Energy metabolism, fatty acid transport, mitochondrial fatty acid oxidation, ketosis, oxidative stress, mitochondrial membrane damage



Carnitine

Glycerophospholipids (309)

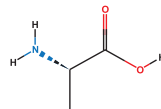
Degradation of phospholipids, membrane damage, signaling cascades, fatty acid profile, dyslipidemia



LysoPC a 24:0

Amino Acids & Biogenic Amines (42)

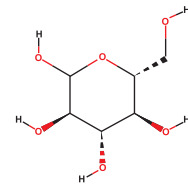
Urea cycle, activity of gluconeogenesis, glycolysis, cell cycle control



Alanine

Monosaccharides (1)

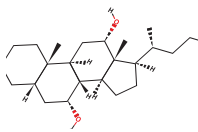
Glycolysis, oncometabolite



Glucose

Bile Acids (20)

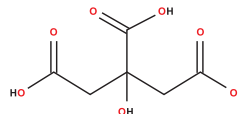
Signaling molecules, hormone-like functions, liver injury, regulation of drug efficacy / toxicity via CYP450



Cholic acid

Energy Metabolism (21)

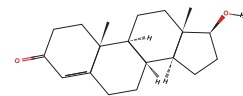
Cellular energy homeostasis



Citric acid

Steroid Hormones (17)

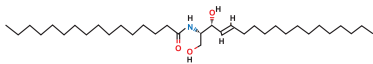
Carbohydrate / lipid metabolism, water / mineral balance, reproduction process, stress



Testosterone

Ceramides (131)

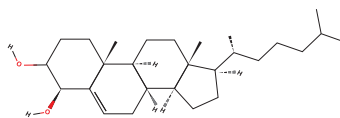
Lipid composition, cell membrane characterization



N-C16:0-Cer

(Oxy-)Sterols (18)

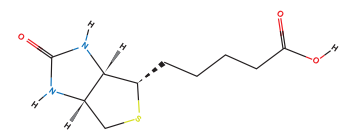
Cholesterol metabolism, oxidative stress, inflammation



4-Beta-Hydroxycholesterol

Vitamins (16)

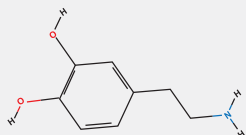
Bioprocess optimization



Biotin

Neurotransmitters (9)

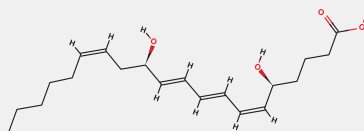
Neurotransmitter metabolism



Dopamine

Eicosanoids (17)

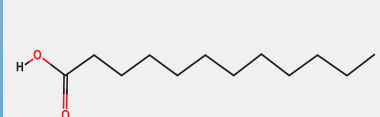
Inflammation



Prostaglandin E2

Fatty Acids (32)

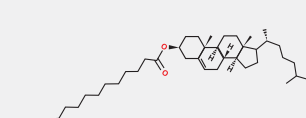
Fatty acid composition and metabolism



Lauric acid

Cholesteryl Esters (14)

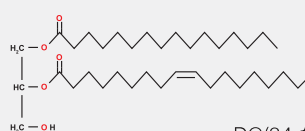
Cholesterol transport, insulin resistance



CE(16:0)

Diglycerides (18)

Signal transduction, inflammation, oxidative stress



DG(34:1)

Triglycerides (42)

Oxidative Stress, insulin resistance



TG(52:4)

List of Metabolites: Metabolic Phenotyping Kits & Services

At the BIOCRATES Metabolic Phenotyping Services Center we make our know-how available to partners in the industry and academic sector. We quantify more than 800 metabolites, analyze a wide range of species and samples, and adapt methods to specific needs. Our services include metabolite pathway analysis to assist the annotation of results and biological interpretation of data.

The number of metabolites indicates the total theoretical number of metabolites which are detected by the assay. Depending on the sample type and species as well as the used mass spectrometer, certain metabolites might be below the detection limit.

For Metabolic Phenotyping Services, please contact: services@biocrates.com

For kits and general questions, please contact: sales@biocrates.com

METABOLITE CLASS	Number of METABOLITES	BIOCRATES KIT	In House SERVICE	Sample Volume ¹⁾
Acylcarnitines	40	Absolute/DQ [®] p180 Kit	Service 1	10 µL ³⁾
Amino acids	21			
Monosaccharides	1			
Glycerophospholipids	90			
Sphingolipids	15			
Biogenic amines	21			
Steroid hormones	17	Absolute/DQ [®] Stero17 Kit ²⁾	Service 2	250 - 550 µL ³⁾
Bile acids	20	Biocrates [®] Bile Acids Kit	Service 3	10 - 20 µL ³⁾
Neurotransmitters	9	-	Service 4	30 µL
Eicosanoids	17	-	Service 5	30 µL
Fatty acids (free/total)	32/31	-	Service 6a/6b	35 µL
Lipids	326	-	Service 7	30 µL
Free (Oxy-)Sterols	18	-	Service 8	30 µL
Vitamins	16	-	Service 9	30 µL
Energy metabolism	21	-	Service 10	130 µL

METABOLITE CLASS	Number of METABOLITES	BIOCRATES KIT	In House SERVICE	Sample Volume
Acylcarnitines	55	Absolute/DQ [®] p400 HR Kit	Service 11	10 µL ³⁾
Amino acids	21			
Biogenic amines	21			
Monosaccharides	1			
Diglycerides	18			
Triglycerides	42			
Lysophosphatidylcholines	24			
Phosphatidylcholines	172			
Sphingomyelins	31			
Ceramides	9			
Cholesteryl esters	14			

¹⁾ Human plasma; for other matrices please contact support@biocrates.com

²⁾ Not for sale in USA and Canada

³⁾ For Metabolic Phenotyping Services, a different sample volume applies. Please contact services@biocrates.com

Absolute/DQ® p180: Kit / Service 1

Acylcarnitines (40)			
C0	Carnitine	C10:1	Decenoylcarnitine
C2	Acetylcarnitine	C10:2	Decadienylcarnitine
C3	Propionylcarnitine	C12	Dodecanoylcarnitine
C3:1	Propenoylcarnitine	C12:1	Dodecenoylcarnitine
C3-OH	Hydroxypropionylcarnitine	C12-DC	Dodecanedioylcarnitine
C4	Butyrylcarnitine	C14	Tetradecanoylcarnitine
C4:1	Butenoylcarnitine	C14:1	Tetradecenoylcarnitine
C4-OH (C3-DC)	Hydroxybutyrylcarnitine	C14:1-OH	Hydroxytetradecenoylcarnitine
C5	Valerylcarnitine	C14:2	Tetradecadienylcarnitine
C5:1	Tiglylcarnitine	C14:2-OH	Hydroxytetradecadienylcarnitine
C5:1-DC	Glutaconylcarnitine	C16	Hexadecanoylcarnitine
C5-DC (C6-OH)	Glutaryl carnitine (Hydroxyhexanoylcarnitine)	C16:1	Hexadecenoylcarnitine
C5-M-DC	Methylglutaryl carnitine	C16:1-OH	Hydroxyhexadecenoylcarnitine
C5-OH (C3-DC-M)	Hydroxyvalerylcarnitine (Methylmalonylcarnitine)	C16:2	Hexadecadienylcarnitine
C6 (C4:1-DC)	Hexanoylcarnitine (Fumaryl carnitine)	C16:2-OH	Hydroxyhexadecadienylcarnitine
C6:1	Hexenoylcarnitine	C16-OH	Hydroxyhexadecanoylcarnitine
C7-DC	Pimelylcarnitine	C18	Octadecanoylcarnitine
C8	Octanoylcarnitine	C18:1	Octadecenoylcarnitine
C9	Nonanoylcarnitine	C18:1-OH	Hydroxyoctadecenoylcarnitine
C10	Decanoylcarnitine	C18:2	Octadecadienylcarnitine

Amino Acids (21)			
Ala	Alanine	Lys	Lysine
Arg	Arginine	Met	Methionine
Asn	Asparagine	Orn	Ornithine
Asp	Aspartate	Phe	Phenylalanine
Cit	Citrulline	Pro	Proline
Gln	Glutamine	Ser	Serine
Glu	Glutamate	Thr	Threonine
Gly	Glycine	Trp	Tryptophan
His	Histidine	Tyr	Tyrosine
Ile	Isoleucine	Val	Valine
Leu	Leucine		

Monosaccharides (1)
Sum of Hexoses (including Glucose)

Glycerophospholipids (90)			
lysoPC a C14:0	PC aa C34:1	PC aa C42:0	PC ae C38:2
lysoPC a C16:0	PC aa C34:2	PC aa C42:1	PC ae C38:3
lysoPC a C16:1	PC aa C34:3	PC aa C42:2	PC ae C38:4
lysoPC a C17:0	PC aa C34:4	PC aa C42:4	PC ae C38:5
lysoPC a C18:0	PC aa C36:0	PC aa C42:5	PC ae C38:6
lysoPC a C18:1	PC aa C36:1	PC aa C42:6	PC ae C40:1
lysoPC a C18:2	PC aa C36:2	PC ae C30:0	PC ae C40:2
lysoPC a C20:3	PC aa C36:3	PC ae C30:1	PC ae C40:3
lysoPC a C20:4	PC aa C36:4	PC ae C30:2	PC ae C40:4
lysoPC a C24:0	PC aa C36:5	PC ae C32:1	PC ae C40:5
lysoPC a C26:0	PC aa C36:6	PC ae C32:2	PC ae C40:6
lysoPC a C26:1	PC aa C38:0	PC ae C34:0	PC ae C42:0
lysoPC a C28:0	PC aa C38:1 ⁴⁾	PC ae C34:1	PC ae C42:1
lysoPC a C28:1	PC aa C38:3	PC ae C34:2	PC ae C42:2
PC aa C24:0	PC aa C38:4	PC ae C34:3	PC ae C42:3
PC aa C26:0	PC aa C38:5	PC ae C36:0	PC ae C42:4
PC aa C28:1	PC aa C38:6	PC ae C36:1	PC ae C42:5
PC aa C30:0	PC aa C40:1	PC ae C36:2	PC ae C44:3
PC aa C30:2 ⁴⁾	PC aa C40:2	PC ae C36:3	PC ae C44:4
PC aa C32:0	PC aa C40:3	PC ae C36:4	PC ae C44:5
PC aa C32:1	PC aa C40:4	PC ae C36:5	PC ae C44:6
PC aa C32:2	PC aa C40:5	PC ae C38:0	
PC aa C32:3	PC aa C40:6	PC ae C38:1	

Sphingolipids (15)			
SM (OH) C14:1	SM C18:0	SM (OH) C22:1	SM (OH) C24:1
SM C16:0	SM C18:1	SM (OH) C22:2	SM C26:0
SM C16:1	SM C20:2	SM C24:0	SM C26:1
SM (OH) C16:1	SM C22:3 ⁴⁾	SM C24:1	

Biogenic Amines (21)			
Ac-Orn	Acetylnornithine	PEA	Phenylethylamine
ADMA	Asymmetric dimethylarginine	<i>cis</i> -OH-Pro	<i>cis</i> -4-Hydroxyproline
alpha-AAA	alpha-Amino adipic acid	<i>trans</i> -OH-Pro	<i>trans</i> -4-Hydroxyproline
Carnosine	Carnosine	Putrescine	Putrescine
Creatinine	Creatinine	Sarcosine (UHPLC only)	Sarcosine
DOPA	DOPA	SDMA	Symmetric dimethylarginine
Dopamine	Dopamine	Serotonin	Serotonin
Histamine	Histamine	Spermidine	Spermidine
Kynurenine	Kynurenine	Spermine	Spermine
Met-SO	Methionine sulfoxide	Taurine	Taurine
Nitro-Tyr ⁵⁾	Nitrotyrosine		

⁴⁾ SCIEX only

⁵⁾ SCIEX / Waters only

Absolute/DQ® Stero17/Stero/DQ: Kit / Service 2

Steroid Hormones (17)	
Aldosterone	11-Deoxycortisol
Androstenedione	Dehydroepiandrosterone-sulfate (DHEA-S)
Androsterone	β-Estradiol (E2)
Corticosterone	Estrone (E1)
Cortisol	Etiocolanolone
Cortisone	17α-Hydroxyprogesterone
Dehydroepiandrosterone (DHEA)	Progesterone
11-Deoxycorticosterone	Testosterone
Dihydrotestosterone (DHT)	

Biocrates® Bile Acids: Kit / Service 3

Bile Acids (20)	
CA	Cholic acid
CDCA	Chenodeoxycholic acid
DCA	Deoxycholic acid
GCA	Glycocholic acid
GCDCA	Glycochenodeoxycholic acid
GDCA	Glycodeoxycholic acid
GLCA	Glycolithocholic acid
GUDCA	Glycoursodeoxycholic acid
HDCA	Hyodeoxycholic acid
LCA	Lithocholic acid
MCA α	Alpha-Muricholic acid
MCA β	Beta-Muricholic acid
MCA ω	Omega-Muricholic acid
TCA	Taurocholic acid
TCDCA	Taurochenodeoxycholic acid
TDCA	Taurodeoxycholic acid
TLCA	Taurolithocholic acid
TMCA α/β	Tauromuricholic acid (sum of alpha and beta)
TUDCA	Tauroursodeoxycholic acid
UDCA	Ursodeoxycholic acid

Neurotransmitter Assay: Service 4

Neurotransmitters (9)	
γ-Amino-butyric acid (GABA)	Glutamate
DOPA	Glutamine
Dopamine	5-Hydroxyindole-3-acetic acid (5-HIAA)
Epinephrine	Serotonin
	Norepinephrine

Eicosanoid Assay: Service 5

Eicosanoids and other Oxidation Products of Polyunsaturated Fatty Acids (PUFAs) (17)	
Leukotriene B4	9S-HODE
Thromboxane B2	13S-HODE
Leukotriene D4	14(15)-EpETE
Prostaglandin E2	12S-HETE
8-iso-Prostaglandin F2α	15S-HETE
Prostaglandin F2α	Arachidonic acid
6-keto-Prostaglandin F1α	Docosahexaenoic acid
Prostaglandin D2	15-deoxy PGJ2
tetranor PGE-M	

Fatty Acid Assay: Service 6a (free) and 6b (total)

Fatty Acids (31/32)			
C12:0	Lauric acid	C19:0	Nonadecanoic acid
C13:0	Tridecanoic acid	cis-C18:3w6	γ-Linolenic acid
C14:0	Myristic acid	cis-C18:3w3	Linolenic acid
cis-C14:1w5	Myristoleic acid	cis-C18:4w3	Stearidonic acid
C15:0	Pentadecanoic acid	C20:0	Arachidic acid (Eicosanoic acid)
C16:0	Palmitic acid	cis-C20:2w6	cis-11,14-Eicosenoic acid
cis-C16:1w10	Sapienic acid	cis-C20:1w9	cis-11-Eicosenoic acid
cis-C16:1w7	Palmitoleic acid	C21:0	Heneicosanoic acid
C17:0	Heptadecanoic acid	cis-C20:3w6	cis-8,11,14-Eicosatrienoic acid
C18:0	Stearic acid	cis-C20:4w6	Arachidonic acid
cis-C18:1w9	Oleic acid	C22:0	Behenic acid
cis-C18:1w7	Vaccenic acid	cis-C20:5w3	EPA (cis-5,8,11,14,17-Eicosapentaenoic acid)
cis-C18:2w6	Linoleic acid	cis-C22:1w9 ⁶⁾	Erucic acid
cis-C22:4w6	Adrenic acid (cis-7,10,13,16-Docosatetraenoic acid)	C23:0	Tricosanoic acid
cis-C22:5w3	DPA (cis-7,10,13,16,19-Docosapentaenoic acid)	C24:0	Lignoceric acid
cis-C22:6w3	DHA (cis-4,7,10,13,16,19-Docosahexaenoic acid)	cis-C24:1w9	Nervonic acid

⁶⁾ Assay 6a only

Lipid Assay: Service 7

Glycerophospholipids (162)			
Lysophosphatidylcholines (acyl or ether bond)		Phosphatidylglycerols (acyl/ether bonds)⁷⁾	
LPC a C16:0	LPC a C18:2	PG ae C32:0	PG ae C34:1
LPC a C18:0	LPC a C20:4	PG ae C34:0	PG ae C36:1
LPC a C18:1	LPC e C18:0	Lysophosphatidylethanolamines (acyl or ether bond)⁷⁾	
Phosphatidylcholines (diacyl bonds)		LPE a C16:0	LPE a C22:4
PC aa C30:0	PC aa C36:4	LPE a C18:0	LPE a C22:5
PC aa C30:1	PC aa C36:5	LPE a C18:1	LPE a C22:6
PC aa C30:2	PC aa C38:1	LPE a C18:2	LPE e C18:0
PC aa C32:0	PC aa C38:2	LPE a C20:4	
PC aa C32:1	PC aa C38:3	Phosphatidylethanolamines (diacyl bonds)⁷⁾	
PC aa C32:2	PC aa C38:4	PE aa C20:0	PE aa C38:0
PC aa C34:0	PC aa C38:5	PE aa C22:2	PE aa C38:1
PC aa C34:1	PC aa C38:6	PE aa C26:4	PE aa C38:2
PC aa C34:2	PC aa C40:4	PE aa C28:4	PE aa C38:3
PC aa C34:3	PC aa C40:5	PE aa C28:5	PE aa C38:4
PC aa C36:0	PC aa C40:6	PE aa C34:0	PE aa C38:5
PC aa C36:1	PC aa C40:7	PE aa C34:1	PE aa C38:6
PC aa C36:2	PC aa C40:8	PE aa C34:2	PE aa C38:7
PC aa C36:3		PE aa C34:3	PE aa C40:2
Phosphatidylcholines (acyl/ether bonds)		PE aa C36:0	PE aa C40:3
PC ae C32:0	PC ae C36:3	PE aa C36:1	PE aa C40:4
PC ae C32:1	PC ae C36:4	PE aa C36:2	PE aa C40:5
PC ae C32:6	PC ae C36:5	PE aa C36:3	PE aa C40:6
PC ae C34:0	PC ae C38:1	PE aa C36:4	PE aa C40:7
PC ae C34:1	PC ae C38:2	PE aa C36:5	PE aa C48:1
PC ae C34:2	PC ae C38:3	Phosphatidylethanolamines (acyl/ethyl bonds)⁷⁾	
PC ae C34:3	PC ae C38:4	PE ae C34:1	PE ae C38:5
PC ae C34:6	PC ae C38:5	PE ae C34:2	PE ae C38:6
PC ae C36:1	PC ae C38:6	PE ae C34:3	PE ae C40:1
PC ae C36:2	PC ae C40:5	PE ae C36:1	PE ae C40:2
Lysophosphatidylglycerols (ether bond)⁷⁾		PE ae C36:2	PE ae C40:3
LPG e C14:2		PE ae C36:3	PE ae C40:4
Phosphatidylglycerols (diacyl bonds)⁷⁾		PE ae C36:4	PE ae C40:5
PG aa C30:0	PG aa C34:3	PE ae C36:5	PE ae C40:6
PG aa C32:0	PG aa C36:0	PE ae C38:1	PE ae C42:1
PG aa C32:1	PG aa C36:1	PE ae C38:2	PE ae C42:2
PG aa C33:6	PG aa C36:2	PE ae C38:3	PE ae C46:5
PG aa C34:0	PG aa C36:3	PE ae C38:4	PE ae C46:6
PG aa C34:1	PG aa C36:4		
PG aa C34:2	PG aa C38:5		

⁷⁾ Partial Lipid Assay

Phosphatidylserines (diacyl bonds) ⁷⁾		Phosphatidylserines (acyl/ether bonds) ⁷⁾	
PS aa C34:1	PS aa C36:2	PS ae C34:2	PS ae C36:2
PS aa C34:2	PS aa C36:3	PS ae C36:1	PS ae C38:4
PS aa C36:0	PS aa C36:4		
PS aa C36:1	PS aa C38:1		
PS aa C38:2	PS aa C40:5		
PS aa C38:3	PS aa C40:6		
PS aa C38:4	PS aa C40:7		
PS aa C38:5	PS aa C42:1		
PS aa C40:1	PS aa C42:2		
PS aa C40:2	PS aa C42:4		
PS aa C40:3	PS aa C42:5		
PS aa C40:4			

Sphingomyelins (33)			
SM C3:0	Sphingomyelin with C3:0	SM C21:3	Sphingomyelin with C21:3
SM C14:0	Sphingomyelin with C14:0	SM C22:0	Sphingomyelin with C22:0
SM C15:0	Sphingomyelin with C15:0	SM C22:1	Sphingomyelin with C22:1
SM C16:0	Sphingomyelin with C16:0	SM C22:2	Sphingomyelin with C22:2
SM C16:1	Sphingomyelin with C16:1	SM C22:3	Sphingomyelin with C22:3
SM C17:0	Sphingomyelin with C17:0	SM C23:0	Sphingomyelin with C23:0
SM C18:0	Sphingomyelin with C18:0	SM C23:1	Sphingomyelin with C23:1
SM C18:1	Sphingomyelin with C18:1	SM C23:2	Sphingomyelin with C23:2
SM C19:0	Sphingomyelin with C19:0	SM C23:3	Sphingomyelin with C23:3
SM C19:1	Sphingomyelin with C19:1	SM C24:0	Sphingomyelin with C24:0
SM C19:2	Sphingomyelin with C19:2	SM C24:1	Sphingomyelin with C24:1
SM C20:0	Sphingomyelin with C20:0	SM C24:2	Sphingomyelin with C24:2
SM C20:1	Sphingomyelin with C20:1	SM C24:3	Sphingomyelin with C24:3
SM C20:2	Sphingomyelin with C20:2	SM C24:4	Sphingomyelin with C24:4
SM C21:0	Sphingomyelin with C21:0	SM C26:3	Sphingomyelin with C26:3
SM C21:1	Sphingomyelin with C21:1	SM C26:4	Sphingomyelin with C26:4
SM C21:2	Sphingomyelin with C21:2		

Ceramides (131)			
Ceramides ⁷⁾		2-Hydroxyacyl-dihydroceramides ⁷⁾	
N-C7:0-Cer	N-C18:0-Cer	N-C7:0(OH)-Cer(2H)	N-C19:0(OH)-Cer(2H)
N-C7:1-Cer	N-C18:1-Cer	N-C8:0(OH)-Cer(2H)	N-C20:0(OH)-Cer(2H)
N-C8:0-Cer	N-C19:0-Cer	N-C9:0(OH)-Cer(2H)	N-C21:0(OH)-Cer(2H)
N-C8:1-Cer	N-C19:1-Cer	N-C10:0(OH)-Cer(2H)	N-C22:0(OH)-Cer(2H)
N-C9:0-Cer	N-C20:0-Cer	N-C11:0(OH)-Cer(2H)	N-C23:0(OH)-Cer(2H)
N-C9:1-Cer	N-C20:1-Cer	N-C13:0(OH)-Cer(2H)	N-C24:0(OH)-Cer(2H)
N-C10:0-Cer	N-C21:0-Cer	N-C14:0(OH)-Cer(2H)	N-C25:0(OH)-Cer(2H)

⁷⁾ Partial Lipid Assay

N-C10:1-Cer	N-C21:1-Cer	N-C15:0(OH)-Cer(2H)	N-C26:0(OH)-Cer(2H)
N-C11:0-Cer	N-C22:0-Cer	N-C16:0(OH)-Cer(2H)	N-C27:0(OH)-Cer(2H)
N-C11:1-Cer	N-C22:1-Cer	N-C17:0(OH)-Cer(2H)	N-C28:0(OH)-Cer(2H)
N-C12:0-Cer	N-C23:0-Cer	N-C18:0(OH)-Cer(2H)	
N-C12:1-Cer	N-C23:1-Cer	Dihydroceramides⁷⁾	
N-C13:0-Cer	N-C24:0-Cer	N-C7:0-Cer(2H)	N-C18:0-Cer(2H)
N-C13:1-Cer	N-C24:1-Cer	N-C7:1-Cer(2H)	N-C18:1-Cer(2H)
N-C14:0-Cer	N-C25:0-Cer	N-C8:0-Cer(2H)	N-C19:0-Cer(2H)
N-C14:1-Cer	N-C25:1-Cer	N-C8:1-Cer(2H)	N-C19:1-Cer(2H)
N-C15:0-Cer	N-C26:0-Cer	N-C9:0-Cer(2H)	N-C20:0-Cer(2H)
N-C15:1-Cer	N-C26:1-Cer	N-C9:1-Cer(2H)	N-C20:1-Cer(2H)
N-C16:0-Cer	N-C27:0-Cer	N-C10:0-Cer(2H)	N-C21:0-Cer(2H)
N-C16:1-Cer	N-C27:1-Cer	N-C10:1-Cer(2H)	N-C21:1-Cer(2H)
N-C17:0-Cer	N-C28:0-Cer	N-C11:0-Cer(2H)	N-C22:0-Cer(2H)
N-C17:1-Cer	N-C28:1-Cer	N-C11:1-Cer(2H)	N-C22:1-Cer(2H)
2-Hydroxyacyl-ceramides⁷⁾		N-C12:0-Cer(2H)	N-C23:0-Cer(2H)
N-C7:0(OH)-Cer	N-C18:0(OH)-Cer	N-C12:1-Cer(2H)	N-C23:1-Cer(2H)
N-C8:0(OH)-Cer	N-C19:0(OH)-Cer	N-C13:0-Cer(2H)	N-C24:0-Cer(2H)
N-C9:0(OH)-Cer	N-C20:0(OH)-Cer	N-C13:1-Cer(2H)	N-C24:1-Cer(2H)
N-C10:0(OH)-Cer	N-C21:0(OH)-Cer	N-C14:0-Cer(2H)	N-C25:0-Cer(2H)
N-C11:0(OH)-Cer	N-C22:0(OH)-Cer	N-C14:1-Cer(2H)	N-C25:1-Cer(2H)
N-C12:0(OH)-Cer	N-C23:0(OH)-Cer	N-C15:0-Cer(2H)	N-C26:0-Cer(2H)
N-C13:0(OH)-Cer	N-C24:0(OH)-Cer	N-C15:1-Cer(2H)	N-C26:1-Cer(2H)
N-C14:0(OH)-Cer	N-C25:0(OH)-Cer	N-C16:0-Cer(2H)	N-C27:0-Cer(2H)
N-C15:0(OH)-Cer	N-C26:0(OH)-Cer	N-C16:1-Cer(2H)	N-C27:1-Cer(2H)
N-C16:0(OH)-Cer	N-C27:0(OH)-Cer	N-C17:0-Cer(2H)	N-C28:0-Cer(2H)
N-C17:0(OH)-Cer	N-C28:0(OH)-Cer	N-C17:1-Cer(2H)	N-C28:1-Cer(2H)

⁷⁾ Partial Lipid Assay

Oxysterol Assay: Service 8

Free (Oxy-)Sterols (18)	
4 β -Hydroxycholesterol	24,25-Epoxycholesterol
7 α -Hydroxycholesterol	7 α -Hydroxycholestenone
7 β -Hydroxycholesterol	7-Ketocholesterol
22R-Hydroxycholesterol	7-Dehydrocholesterol
24S-Hydroxycholesterol	24,25-Dihydrolanosterol
25-Hydroxycholesterol	5 α ,6 β -Dihydroxycholestanol (THC)
27-Hydroxycholesterol	Desmosterol
5 α ,6 α -Epoxycholesterol	Lanosterol
5 β ,6 β -Epoxycholesterol	Cholesterol ⁸⁾

Vitamin Assay: Service 9

Vitamins (16) ⁹⁾	
α -Tocopherol (E)	Niacin (B3)
Betaine	Nicotinamide (B3)
Biotin (B7)	Pantothenic acid (B5)
Choline	Pyridoxal-5'-phosphate (B6)
Cyanocobalamin (B12)	Pyridoxine (B6)
δ -Tocopherol (E)	Retinol (A)
Folic acid (B9)	Riboflavin (B2)
γ -Tocopherol (E)	Thiamine (B1)

⁸⁾ **Optional**

⁹⁾ **In cell culture medium only**

Energy Metabolism Assay: Service 10

Core Intermediates of Energy Metabolism (13)	
Glucose	Malic acid
Pyruvic acid	Lactic acid
Citric acid	Ribose
Isocitric acid	2-Hydroxy glutaric acid
alpha-Ketoglutaric acid	2-Hydroxy butyric acid
Succinic acid	3-Hydroxy butyric acid
Fumaric acid	
Energy-Relevant Amino Acids (8)	
Alanine	Glutamic acid
Arginine	Glutamine
Asparagine	Glycine
Aspartic acid	Serine

Absolute/DQ® p400 HR: Kit / Service 11

Acylcarnitines (55)			
AC(0:0)	Carnitine	AC(10:2)	Decadienoylcarnitine
AC(2:0)	Acetylcarnitine	AC(10:3)	Decatrienoylcarnitine
AC(3:0)	Propionoylcarnitine	AC(11:0)	Dimethylnonanoylcarnitine
AC(3:0-DC)	Malonylcarnitine	AC(12:0)	Dodecanoylcarnitine
AC(3:0-OH)	Hydroxypropionoylcarnitine	AC(12:0-DC)	Dodecanedioylcarnitine
AC(3:1)	Propenoylcarnitine	AC(12:1)	Dodecenoylcarnitine
AC(4:0)	Butyrylcarnitine	AC(13:0)	Tridecanoylcarnitine
AC(4:0-DC)	Methylmalonylcarnitine	AC(14:0)	Tetradecanoylcarnitine
AC(4:0-OH)	Hydroxybutyrylcarnitine	AC(14:0-OH)	Hydroxymyristoylcarnitine
AC(4:1)	Butenylcarnitine	AC(14:1)	Tetradecenoylcarnitine
AC(4:1-DC)	Fumaryl carnitine	AC(14:1-DC)	Carboxytridecenoylcarnitine
AC(5:0)	Valerylcarnitine	AC(14:1-OH)	Hydroxytetradecenoylcarnitine
AC(5:0-DC)	Glutaryl carnitine	AC(14:2)	Tetradecadienoylcarnitine
AC(5:0-OH)	Hydroxyvalerylcarnitine	AC(14:2-OH)	Hydroxytetradecadienoylcarnitine
AC(5:1)	Tiglylcarnitine	AC(15:0)	Pentadecanoylcarnitine
AC(5:1-DC)	Glutaconyl carnitine	AC(16:0)	Hexadecanoylcarnitine
AC(6:0)	Hexanoylcarnitine	AC(16:0-OH)	Hydroxyhexadecanoylcarnitine
AC(6:0-DC)	Adipoylcarnitine	AC(16:1)	Hexadecenoylcarnitine
AC(6:0-OH)	Hydroxyhexanoylcarnitine	AC(16:1-OH)	Hydroxyhexadecenoylcarnitine
AC(6:1)	Hexenoylcarnitine	AC(16:2)	Hexadecadienoylcarnitine
AC(7:0)	Heptanoylcarnitine	AC(16:2-OH)	Hydroxyhexadecadienoylcarnitine
AC(7:0-DC)	Pimeloylcarnitine	AC(17:0)	Heptadecanoylcarnitine
AC(8:0)	Octanoylcarnitine	AC(18:0)	Octadecanoylcarnitine
AC(8:1)	Octenoylcarnitine	AC(18:1)	Octadecenoylcarnitine
AC(8:1-OH)	Hydroxyoctenoylcarnitine	AC(18:1-OH)	Hydroxyoctadecenoylcarnitine
AC(9:0)	Nonaylcarnitine	AC(18:2)	Octadecadienylcarnitine
AC(10:0)	Decanoylcarnitine	AC(19:0)	Nonadecanoylcarnitine
AC(10:1)	Decenoylcarnitine		

Amino Acids (21)			
Ala	Alanine	Lys	Lysine
Arg	Arginine	Met	Methionine
Asn	Asparagine	Orn	Ornithine
Asp	Aspartate	Phe	Phenylalanine
Cit	Citrulline	Pro	Proline
Gln	Glutamine	Ser	Serine
Glu	Glutamate	Thr	Threonine
Gly	Glycine	Trp	Tryptophan
His	Histidine	Tyr	Tyrosine
Ile	Isoleucine ¹⁰	Val	Valine
xLeu	Leucine + Isoleucine		

Biogenic Amines (21)			
Ac-Orn	Acetylnornithine	Nitro-Tyr	Nitrotyrosine
ADMA	Asymmetric dimethylarginine	PEA	Phenylethylamine
alpha-AAA	alpha-Aminoadipic acid	Putrescine	Putrescine
Carnosine	Carnosine	Sarcosine	Sarcosine
c4-OH-Pro	<i>cis</i> -4-Hydroxyproline	SDMA	Symmetric dimethylarginine
Creatinine	Creatinine	Serotonine	Serotonin
DOPA	Dihydroxyphenylalanine	Spermidine	Spermidine
Dopamine	Dopamine	Spermine	Spermine
Histamine	Histamine	Taurine	Taurine
Kynurenine	Kynurenine	t4-OH-Pro	<i>trans</i> -4-Hydroxyproline
Met-SO	Methionine sulfoxide		

Monosaccharides (1)	
H1	Hexoses (including glucose)

¹⁰⁾ analyzed by additional LC-MS injection in parallel reaction monitoring (PRM) mode

Diglycerides (18)			
DG(32:1)	DG(36:3)	DG(41:1)	DG-O(32:2)
DG(32:2)	DG(36:4)	DG(42:0)	DG-O(34:1)
DG(34:1)	DG(38:0)	DG(42:1)	DG-O(36:4)
DG(34:3)	DG(38:5)	DG(42:2)	
DG(36:2)	DG(39:0)	DG(44:3)	

Triglycerides (42)			
TG(44:1)	TG(50:3)	TG(52:6)	TG(54:7)
TG(44:2)	TG(50:4)	TG(52:7)	TG(55:6)
TG(44:4)	TG(51:1)	TG(53:3)	TG(55:7)
TG(46:2)	TG(51:2)	TG(53:4)	TG(55:8)
TG(48:1)	TG(51:3)	TG(53:5)	TG(55:9)
TG(48:2)	TG(51:4)	TG(53:6)	TG(56:6)
TG(48:3)	TG(51:5)	TG(54:2)	TG(56:7)
TG(49:1)	TG(52:2)	TG(54:3)	TG(56:8)
TG(49:2)	TG(52:3)	TG(54:4)	TG(56:9)
TG(50:1)	TG(52:4)	TG(54:5)	
TG(50:2)	TG(52:5)	TG(54:6)	

Lysophosphatidylcholines (24)			
LPC(12:0)	LPC(17:1)	LPC(20:2)	LPC(24:1)
LPC(14:0)	LPC(18:0)	LPC(20:3)	LPC-O(16:1)
LPC(15:0)	LPC(18:1)	LPC(20:4)	LPC-O(17:1)
LPC(16:0)	LPC(18:2)	LPC(22:5)	LPC-O(18:0)
LPC(16:1)	LPC(20:0)	LPC(22:6)	LPC-O(18:1)
LPC(17:0)	LPC(20:1)	LPC(24:0)	LPC-O(18:2)

Phosphatidylcholines (172)			
PC(24:0)	PC(36:1)	PC(41:5)	PC-O(34:0)
PC(25:0)	PC(36:2)	PC(41:8)	PC-O(34:1)
PC(26:0)	PC(36:3)	PC(42:0)	PC-O(34:2)
PC(27:0)	PC(36:4)	PC(42:1)	PC-O(34:3)
PC(27:1)	PC(36:5)	PC(42:2)	PC-O(34:4)
PC(28:1)	PC(36:6)	PC(42:3)	PC-O(35:3)
PC(29:0)	PC(37:0)	PC(42:4)	PC-O(35:4)
PC(29:1)	PC(37:1)	PC(42:5)	PC-O(36:0)
PC(29:2)	PC(37:2)	PC(42:6)	PC-O(36:1)
PC(30:0)	PC(37:3)	PC(42:7)	PC-O(36:2)
PC(30:1)	PC(37:4)	PC(42:10)	PC-O(36:3)
PC(30:2)	PC(37:5)	PC(43:2)	PC-O(36:4)
PC(30:3)	PC(37:6)	PC(43:6)	PC-O(36:5)
PC(31:0)	PC(37:7)	PC(44:1)	PC-O(36:6)
PC(31:1)	PC(38:0)	PC(44:3)	PC-O(37:6)
PC(31:2)	PC(38:1)	PC(44:5)	PC-O(37:7)
PC(31:3)	PC(38:2)	PC(44:6)	PC-O(38:0)
PC(32:0)	PC(38:3)	PC(44:7)	PC-O(38:1)
PC(32:1)	PC(38:4)	PC(44:10)	PC-O(38:2)
PC(32:2)	PC(38:5)	PC(44:12)	PC-O(38:3)
PC(32:3)	PC(38:6)	PC(46:1)	PC-O(38:4)
PC(32:4)	PC(38:7)	PC(46:2)	PC-O(38:5)
PC(32:5)	PC(39:0)	PC-O(26:0)	PC-O(38:6)
PC(32:6)	PC(39:1)	PC-O(26:1)	PC-O(40:0)
PC(33:0)	PC(39:2)	PC-O(28:0)	PC-O(40:1)
PC(33:1)	PC(39:3)	PC-O(28:1)	PC-O(40:2)
PC(33:2)	PC(39:4)	PC-O(29:0)	PC-O(40:3)
PC(33:3)	PC(39:5)	PC-O(30:0)	PC-O(40:4)
PC(33:4)	PC(39:6)	PC-O(30:1)	PC-O(40:5)
PC(33:5)	PC(39:7)	PC-O(30:2)	PC-O(40:6)
PC(34:0)	PC(40:1)	PC-O(31:0)	PC-O(40:7)
PC(34:1)	PC(40:2)	PC-O(31:1)	PC-O(40:8)
PC(34:2)	PC(40:3)	PC-O(31:3)	PC-O(42:0)
PC(34:3)	PC(40:4)	PC-O(32:0)	PC-O(42:1)
PC(34:4)	PC(40:5)	PC-O(32:1)	PC-O(42:2)
PC(34:5)	PC(40:6)	PC-O(32:2)	PC-O(42:3)
PC(35:0)	PC(40:7)	PC-O(32:3)	PC-O(42:4)
PC(35:1)	PC(40:8)	PC-O(33:0)	PC-O(42:5)
PC(35:2)	PC(40:9)	PC-O(33:1)	PC-O(42:6)
PC(35:3)	PC(41:1)	PC-O(33:2)	PC-O(44:3)
PC(35:4)	PC(41:2)	PC-O(33:3)	PC-O(44:4)
PC(35:5)	PC(41:3)	PC-O(33:4)	PC-O(44:5)
PC(36:0)	PC(41:4)	PC-O(33:6)	PC-O(44:6)

Sphingomyelins (31)			
SM(30:1)	SM(34:2)	SM(38:3)	SM(42:1)
SM(31:0)	SM(35:1)	SM(39:1)	SM(42:2)
SM(31:1)	SM(36:0)	SM(39:2)	SM(42:3)
SM(32:1)	SM(36:1)	SM(40:1)	SM(43:1)
SM(32:2)	SM(36:2)	SM(40:2)	SM(43:2)
SM(33:1)	SM(37:1)	SM(40:4)	SM(44:1)
SM(33:2)	SM(38:1)	SM(41:1)	SM(44:2)
SM(34:1)	SM(38:2)	SM(41:2)	

Ceramides (9)			
Cer(34:0)	Cer(40:1)	Cer(42:2)	
Cer(34:1)	Cer(41:1)	Cer(43:1)	
Cer(38:1)	Cer(42:1)	Cer(44:0)	

Cholesteryl Esters (14)			
CE(16:0)	CE(17:2)	CE(19:2)	CE(22:5)
CE(16:1)	CE(18:1)	CE(19:3)	CE(22:6)
CE(17:0)	CE(18:2)	CE(20:4)	
CE(17:1)	CE(18:3)	CE(20:5)	