

Platform A**Short-chain fatty acids.**

Sample vol.: 50 µL

- Acetate
- Butyrate
- Formate
- Isobutyrate
- Isovalerate
- Propionate
- Valerate
- α-Methylbutyrate

GC-MS/MS

Concentrations in µmol/L

Platform B**TCA metabolites and intermediates.****Amino and carboxylic acids.**

Sample vol.: 50 µL

Concentrations in µmol/L

- 2-Aminoadipic acid
 - 2-Hydroxybutyrate
 - 3-Hydroxybutyrate
 - 3-Hydroxyisobutyrate
 - Acetoacetate
 - Carboxyethyllysine
 - Carboxymethyllysine
 - Citrate
 - Cystathionine
 - Fumarate
 - Glycine
 - Histidine
 - Isocitrate
 - Kynurenines
 - Lactate
 - Malate
 - Methionine
 - Methylmalonic acid
 - Ornithine
 - Other amino acids:
- Aspartic acid (Asp), glutamic acid (Glu), lysine (Lys), alanine acid (Ala), phenylalanine (Phe), isoleucine (Ile), leucine (Leu), proline (Pro), valine (Val), asparagine (Asn), glutamine (Gln), threonine (Thr), and tyrosine (Tyr).

GC-MS/MS

Concentrations in µmol/L

- Pyruvate
- Sarcosine
- Serine
- Total cysteine
- Total homocysteine
- Tryptophan
- α-Hydroxyglutaric acid
- α-Ketoglutarate
- β-Alanine
- β-Aminoisobutyrate

Platform I**LC (HILIC)-MS/MS****Short-, medium-, and long-chain acylcarnitines.**
*New platform under development***Platform C****Choline derivates.****Charged, methylated or sulfur amino acids.
Short- and medium-chain acylcarnitines.**

Sample vol.: 35 µL

LC-MS/MS

Concentrations in µmol/L

- 1-Methylhistidine
- 3-Methylhistidine
- Arginine
- Asymmetric dimethylarginine
- Betaine
- Carnitine
- Carnitine, total
- Choline
- Choline, total
- Citrulline
- Creatine
- Creatinine
- Dimethylglycine
- Histidine
- Homoarginine
- Methionine
- Methionine sulfoxide
- Short- and medium-chain acylcarnitines
- Symmetric dimethylarginine
- Total cysteine
- Total homocysteine
- Trimethylamine N-oxide
- Trimethyllysine

Platform D**Kynurenone pathway and B vitamins
(B1, B2, B3, B6).**

Sample vol.: 60 µL

LC-MS/MS

Concentrations in µmol/L (*) or nmol/L

- 4-Pyridoxic acid
- Cotinine
- Cystathionine*
- Flavin mononucleotide
- Imidazole propionate*
- Kynurenone*
- Microbiota-derived indoles
- N1-methylnicotinamide
- Neopterin
- Nicotinamide
- Nicotinic acid
- Pyridoxal
- Pyridoxal 5-phosphate
- Pyridoxine
- Riboflavin
- Succinate
- Thiamine
- Thiamine monophosphate
- Trans-3-hydroxycotinine
- Trigonelline*
- Trimethylamine N-oxide*
- Tryptophan*
- Derived indexes:
HK:X ratio
HKr
Kyn/Trp ratio
PAr

**Platform E****Folate species and catabolites.**

Sample vol.: 60 µL

LC-MS/MS

Concentrations in nmol/L

- 4-Alfa-hydroxy-5-methyl-THF
- 5-Formyl-tetrahydrofolate
- 5-Methyl-tetrahydrofolate
- Acetamidobenzoylglyutamate
- Folic acid
- Para-aminobenzoylglyutamate
- RBC-folate as pABG equivalents
- Serum folate as pABG equivalents

Platform F**Microbiological assay
Folate (B9) and cobalamin (B12).**

Sample vol.: 15–35 µL

Concentrations in nmol/L or pmol/L (*)

- Erythrocyte folate
- Serum cobalamin*
- Serum folate

Platform G**MALDI-TOF MS
Proteins and proteoforms.**

Sample vol.: 30 µL

Concentrations in µmol/L

- C-reactive protein
- Calprotectin and variants
- Cystatin C and variants
- HbA1c
- Serum amyloid A and variants

Platform H**LC-MS/MS
Lipid-soluble vitamins and
long-chain acylcarnitines.**

Sample vol.: 50–100 µL

Concentrations in µmol/L or nmol/L (*)

- 25-hydroxy vitamin D2*
- 25-hydroxy vitamin D3*
- All-trans retinol
- Long-chain acylcarnitines
- Phylloquinone*
- α-tocopherol
- γ-tocopherol