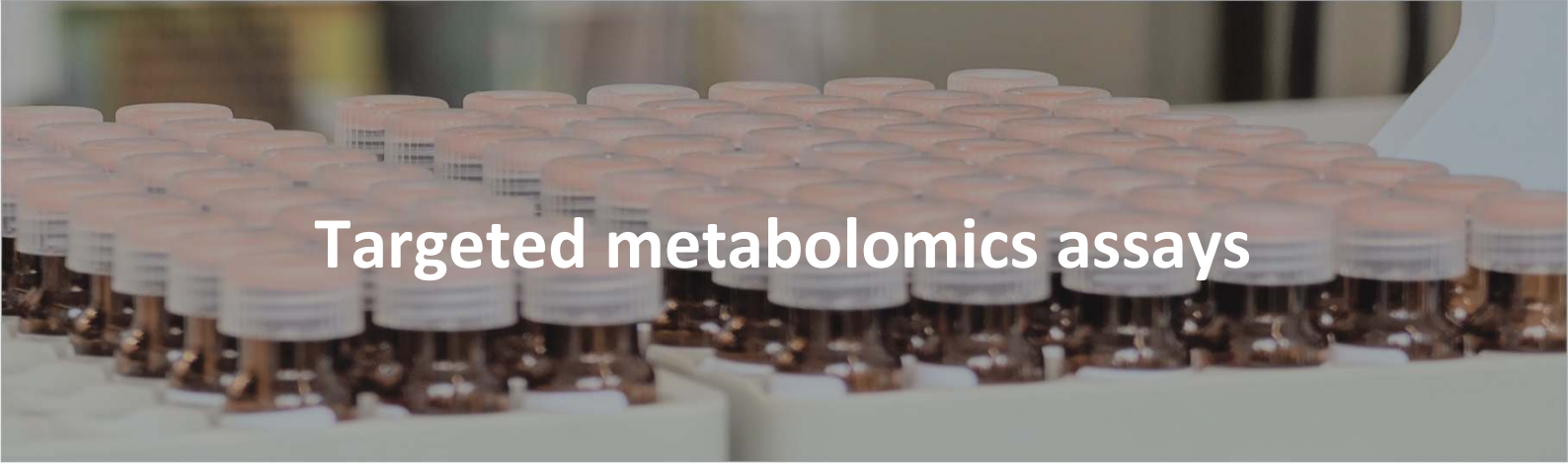

Targeted metabolomics assays

Each targeted assay provides relative quantification of metabolites by normalization to internal standards. All our targeted assays are validated in EDTA plasma. Our portfolio includes:

Signaling & bioactive lipids:

Required sample volume (EDTA plasma): 75 µL

What: The signaling lipid assay covers a range of molecules involved in inflammatory responses and oxidative stress. These compounds are n-3 an n-6 poly unsaturated fatty acids (PUFAs) and their oxylipin derivative, endocannabinoids, bile acids, (cyclic-)lysophospholipids, sphingolipids (C16, C18) as well as their phosphorylated forms, and platelet activating factors (C16, C18).

How: After a liquid-liquid extraction, two reversed-phase chromatographic injections are executed at low pH and high pH. Both chromatography's are coupled to a triple quadrupole mass spectrometer which operates at polarity switching mode. Instrumentation used for this assay comprises of a Shimadzu UHPLC coupled to a Sciex QTRAP 6500+ mass spectrometer (high pH) and a Sciex Exion UHPLC coupled to a Sciex QTRAP 7500 mass spectrometer.

Instrumentation used for high pH chromatography

Instrumentation used for low pH chromatography

Amines:

Required sample volume (EDTA plasma): 50 µL

What: This assay includes biogenic amines and (oxidized) amino acids which provides insight in inflammatory response. Amongst others, important inflammatory metabolites are tryptophan, kynurenine, histamine, GABA, adrenaline, and noradrenaline.

How: After a protein precipitation and derivatization step, these metabolites are measured by reversed-phase UHPLC-MS/MS in positive ionization mode. Instrumentation used for this assay comprises of a Shimadzu UHPLC coupled to a Sciex QTRAP 6500+ mass spectrometer (see photo below).

Instrumentation used for the Amines assay

NEW! Echo®-Lipidomics:

Available from January 2027

Required sample volume (EDTA plasma): 75 µL

What: The Echo-Lipidomics assay (shotgun lipidomics) covers various lipid classes including phospholipids, lysophospholipids, ether-linked phospholipids, sphingomyelins, ceramides, and diacyl-/triacyl-glycerides.

How: After a fully automated liquid-liquid extraction, acoustic droplet ejection (Echo®) is used to directly infuse the sample to a Zeno-TOF mass spectrometer which operates at parallel reaction monitoring (PRM) mode.

Instrumentation used for the Echo®-lipidomics assay

Fee schedule 2026

Assays	<200 EDTA plasma samples	≥200 EDTA plasma samples
Signaling & bioactive lipids	Upon request	€ 110/sample
Amines	Upon request	€ 90/sample
Echo®-Lipidomics	Upon request	Upon request

Other sample matrices: upon request
For projects <200 samples, a start-up fee applies