

## Quantitative Targeted Analysis of Host Metabolism

The Metabolomics and Exposome Laboratory (MEL) at the UNC Chapel Hill Nutrition Research Institute (UNC NRI) offers broad spectrum metabolomics analysis using standardized kits from Biocrates Life Sciences. Data is acquired using a state-of-the-art Waters TQ-XS triple quadrupole mass spectrometry platform, which is in the class of the most sensitive and selective quantitative MS instruments on the market today. These kits are ideal for basic, clinical, and translational research focused on host metabolism.



The kits have been validated for urine, serum, plasma, human milk, feces, cells, and demonstrated in additional biological fluids and tissue extracts. Biocrates kit performance and quality control standards have been demonstrated through an [international ring trial](#), and the kits have been deployed in hundreds studies to reveal biomarkers and mechanisms of disease and dysfunction.

Key Features of the Biocrates p180 kit include:

- Quantitative analysis for up to 188 metabolites from 5 compound classes including amino acids (21), biogenic amines (21), acylcarnitines (40), glycerophospholipids (90), sphingolipids (15) and hexoses (1).
- For a list of analytes, click here [biocrates-p180-list-of-metabolites-v2-2021.pdf](#)

Key features of the MxP Quant 500 kit include:

- Broad metabolite coverage of up to 630 metabolites from 26 biochemical classes including alkaloids (1), amine oxides (1), amino acids (20), amino acid related (30), bile acids (14), biogenic amines (9), carboxylic acids (7), cresols (1), fatty acids – free/non-covalently bound (12), hormones and related (4), indoles and derivatives (4), nucleobases and related (2), vitamins and cofactors (1), carbohydrates and related (1), acylcarnitines (40), lysophosphatidylcholines (14), phosphatidylcholines (76), sphingomyelins (15), ceramides (28), dihydroceramides (8), hexosylceramides (19), dihexosylceramides (9), trihexosylceramides (6), cholesteryl esters (22), diglycerides (44) and triglycerides (242).
- For a list of analytes, click here [biocrates-Quant500-list-of-metabolites-v6-2022.pdf](#)
- Comprehensive pathway coverage relevant to key biological functions.
- Includes coverage of metabolites that are known to be produced and modified by the host microbiome.

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