## Assay Sheet: Biocrates MxP® Quant 500

## Description:

The $M x P ®$ Quant 500 kit from biocrates life sciences ag (Innsbruck, Austria) is applied for the measurement of more than 600 metabolites in $10 \mu \mathrm{l}$ liquid sample (e.g. plasma and serum). The kit allows the determination of selected metabolites belonging to 27 different metabolite classes. Detection and quantification is carried out by using triple quad mass spectrometry (MS/MS). One part of the
 metabolites (from alkaloids to vitamins and cofactors) is separated by ultra high performance chromatography (UHPLC) before entering the MS (LC-MS/MS). The other part of the metabolites (from acylcarnitines to triglycerides) is directly infused into the mass spectrometer and thus analyzed via flow injection analysis (FIA). The principal workflow includes a chemical derivatization step and the extraction of the analytes as sample preparation followed by LC-MS/MS or FIA determination. Raw data are processed applying the MetIDQ software from biocrates life sciences ag. Concentration data of the metabolites are provided as $\mu \mathrm{mol} / \mathrm{l}$ or $\mathrm{pmol} / \mathrm{mg}$.

## Validated matrices.

- Human serum and plasma (min. $30 \mu \mathrm{l}$ )
- Rodent plasma (min. $15 \mu \mathrm{l}$ )

Beside the validated matrices also additional matrices can be analyzed on request.

## Metabolite Class Overview:

| Metabolite Class | Acronym | Number of Metabolites |
| :---: | :---: | :---: |
| free carnitine |  | 1 |
| acylcarnitines |  | 39 |
| amino acids |  | 20 |
| biogenic amines |  | 9 |
| amino acid related |  | 30 |
| hexose (sum of hexoses) |  | 1 |
| lysophosphatidylcholines (lysoPC) |  | 14 |
| phosphatidylcholines (PC) |  | 76 |
| sphingolipids (SM) |  | 15 |
| alkaloid |  | 1 |
| aminoxide |  | 1 |
| bile acids |  | 14 |
| carboxylic acids |  | 7 |
| cresol |  | 1 |
| fatty acids |  | 3 |
| hormones and related |  | 4 |
| Indoles and derivatives |  | 4 |
| nucleobases and related |  | 2 |
| vitamin/cofactor |  | 1 |
| ceramides |  | 28 |
| Dihydroceramides |  | 8 |
| hexosylceramides |  | 19 |
| dihexosylceramides |  | 9 |
| trihexosylceramides |  | 6 |
| cholesteryl esters |  | 22 |
| diglycerides |  | 44 |
| triglycerides |  | 242 |

