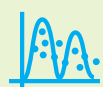


## Acylcarnitines



### Deliverables

This pre-validated panel includes 13 acylcarnitines and allows delivery of **fully quantitative results** (expressed in pmol). In addition, the amount of each sample used for analysis is provided (weight or volume).



### Method

Acylcarnitines are analysed by **LC/ESI-MS/MS** with an Agilent 1290 HPLC system combined with an Agilent 6495 Triplequad mass spectrometer (Agilent Technologies, Santa Clara, USA). Samples are extracted with organic solvents. For lipid quantification, deuterated internal standards are added prior to sample extraction. Crude extracts are further purified by solid phase extraction (SPE). Clean extracts are loaded on the LC system for LC/ESI-MS/MS analysis. Mass spectrometry analysis is performed with multiple reaction monitoring (MRM) in negative ion mode with at least two mass transitions for each compound. Data analysis is done using Mass Hunter software (Agilent Technologies).



### Sample submission guidelines

SAMPLE TYPE	SAMPLE AMOUNT	SHIPMENT CONDITIONS
<b>Whole blood, plasma, serum</b>	50 µl	<i>Frozen, on dry ice</i>
<b>Tissue</b>	20 mg	<i>Frozen piece of tissue, on dry ice</i>
<b>Cells</b>	1 × 10 <sup>6</sup> cells or 150 µg of total protein	<i>Frozen, on dry ice</i>
<b>Milk</b>	500 µl	<i>Frozen, on dry ice</i>

**Minimal sample number: 10**

**Standard turnaround time: 6 weeks**

(for projects with up to 100 samples)

**Expedited delivery** is possible for an additional fee.

### Applications

- > Cellular and systemic metabolism
- > Energy homeostasis
- > Metabolic diseases
- > Aging
- > Cardiovascular and neurological diseases
- > Cancer

## Covered analytes

ANALYTE	FATTY ACID
<b>Decanoylcarnitine</b>	C10:0
<b>Dodecanoylcarnitine</b>	C12:0
<b>Tetradecanoylcarnitine</b>	C14:0
<b>Tetradecenoylcarnitine</b>	C14:1
<b>Palmitoylcarnitine</b>	C16:0
<b>Palmitoleylcarnitine</b>	C16:1
<b>Octadecanoylcarnitine</b>	C18:0
<b>Oleoylcarnitine</b>	C18:1
<b>Linoleoylcarnitine</b>	C18:2
<b>Linolenylcarnitine</b>	C18:3
<b>Arachidonoylcarnitine</b>	C20:4
<b>Eicosapentaenoylcarnitine</b>	C20:5
<b>Docosahexaenoylcarnitine</b>	C22:6

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