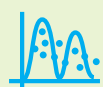


Fatty acid peroxidation



Deliverables

This pre-validated panel includes specific peroxidation markers of omega 6 and omega 3 fatty acids. Respectively, **fully quantitative results** (expressed in pmol) of 4-HNE (4-hydroxynonenal) and 4-HHE (4-hydroxyhexenal) are reported. In addition, the amount of each sample used is provided (weight or volume).



Method

Oxylipins 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
Whole blood, plasma, serum	500 µl	<i>Frozen, on dry ice</i>
Tissue	40 mg	<i>Frozen pieces of tissues, on dry ice</i>
Feces	40 mg	<i>Frozen, on dry ice</i>
Cells	3 × 10 ⁶ cells or 500 µg of total protein	<i>Frozen cell pellet, on dry ice</i>
Liquids (e.g., cell supernatant, media)	0.5–20 ml	<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

- > Apoptosis
- > Ferroptosis
- > Carcinogenesis
- > Inflammation
- > Atherosclerosis and neurodegenerative diseases

Covered analytes

ANALYTE	FATTY ACID	CATEGORY
4-HNE	C6:1	<i>Fatty aldehyde</i>
4-HHE	C9:1	<i>Fatty aldehyde</i>

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