

TECH SHEET

Glucosyl- + Galactosyl-ceramides



Deliverables

This pre-validated panel includes two classes of glycosylated ceramides: Glucosyl- and galactosylceramides, for which 11 species are reported (22 in total). The **fully quantitative results** are provided for each species (expressed in pmol). In addition, the amount of each sample used is reported (weight or volume). The analysis can be extended to other long-chain bases and side chains on request.



Method

Glucosyl-ceramides and galactosyl-ceramides 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 and individual calibration curves are used for each compound. Clean extracts are loaded on the LC system (Cortecs HILIC column) for LC/ESI-MS/MS analysis. Mass spectrometry analysis is performed with multiple reaction monitoring (MRM) in positive 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
Blood plasma	100 µl	Frozen, on dry ice
Tissue	50 mg	Frozen, on dry ice
Cells	2 × 10 ⁶ cells <i>or</i> 300 μg of total protein	Frozen, on dry ice
CSF (cerebrospinal fluid)	300 µl	Frozen, on dry ice

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

- > Skin disorders
- Tumor growth and apoptosis
- Gaucher's and
 Fabry's disease
- > Krabbe's disease
- Neurodegenerative disorders

Covered analytes

ANALYTE	FATTY ACID*
Glucosyl-ceramides	16:0
Galactosyl-ceramides	18:0
	20:0
	22:0
	22:1
	23:0
	24:0
	24:1
	24:2
	26:0
	26:1

* Ceramides with d18:1 long change based are included in the standard coverage. Additional long chain bases and fatty acids can be reported on request.



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