



Stratum Corneum Lipid Panel



Stratum Corneum

The stratum corneum possesses a diverse biochemical composition, including a variety of lipids which contribute to its important role in the barrier and water holding functions of the skin. When these functions are disrupted, it can lead to a variety of skin disorders such as psoriasis, dandruff and eczema. Utilizing metabolomics to measure the biochemical changes in the stratum corneum enables a deeper understanding of these and other skin conditions and offers improved monitoring of response to therapeutic interventions.

Applications

The Stratum Corneum Lipid Panel provides a semi-quantitative screening for over 350 individual lipid metabolites found in stratum corneum. These metabolites span a broad range of structures and lipid classes found in the stratum corneum including free fatty acids, cholesterol, cholesterol sulfate, ceramides, dihydroceramides, phytoceramides and 6-hydroxy-ceramides. Applications for the Stratum Corneum lipid profiling include:

- ▶ Characterization of skin disorders
- ▶ Evaluation of topical treatments of skin disorders
- ▶ Evaluation of cosmetic products
- ▶ Basic research

Stratum Corneum Lipid Panel

Sphingoid Base	Fatty Acid Class
Ceramides	alpha-hydroxy fatty acids (AS)
	esterified omega fatty acids (EOS)
	saturated fatty acids (NS)
Dihydro-ceramides	alpha-hydroxy fatty acids (ADS)
	saturated fatty acids (NDS)
6-Hydroxy-ceramides	alpha-hydroxy fatty acids (AH)
	esterified omega fatty acids (EOH)
	saturated fatty acids (NH)
Phyto-ceramides	alpha-hydroxy fatty acids (AP)
	saturated fatty acids (NP)
Free Fatty Acids	16:0, 16:1, 18:0, 18:1, 18:2, 20:0, 20:1, 20:2, 22:0, 22:1, 24:0, 24:1
Sterols	Cholesterol, Cholesterol Sulfate

The panel is for non-GxP testing and is not for diagnostic use

Analysis Method and Instrumentation

SF-/MS/MS (Waters UPC2/Sciex QTrap 5500)

Sample Type and Required Amounts

Sample Type	Sample Requirement
Stratum Corneum	4 D-Squame disks
Skin cell cultures	5 million cells
Others on request	

Contact us to get started
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