



N-(30-Linoleoyloxy-triacontanoyl)-phytosphingosine

Catalog No. 2135

Relative to other tissues, human stratum corneum (SC), the outermost cellular layer of the epidermis, contains a number of very complex ceramides that play important physiochemical roles in regulating the cutaneous barrier's water-retaining functions. These lipid-enriched membranes contain approximately 50% ceramides, including 12 extractable ceramide sub-groups such as sphingosine, 6-hydroxysphingosine, dihydrosphingosine, and phytosphingosine bases. Esterified *omega*-hydroxy-ceramides, skin-specific ceramides, are formed from glucosylceramide and sphingomyelin in special lamellar bodies in epidermal cells and are excreted into the SC. A deficiency of linoleoyl *omega*-esterified ceramides is strongly correlated with skin diseases such as ichthyosis, psoriasis, and atopic dermatitis.

Due to the complex nature of the human SC, analysis can be highly challenging. Shotgun lipidomics is a recent liquid chromatography-mass spectrometry technique that provides data on large amounts of analytes in a single experimental run. This approach allows for the rapid, high-throughput analysis of difficult samples. By taking advantage of specific esterified *omega*-hydroxy-ceramide internal standards, classes of skin lipids have been identified and quantified. Matreya is pleased to offer an extensive line of highly purified skin ceramides for analysis and research.

## Sphingosines

Catalog No.	Product Name
2096	N-(R)- <i>alpha</i> -Hydroxytetracosanoyl-D- <i>erythro</i> -sphingosine
2097	N-(S)- <i>alpha</i> -Hydroxytetracosanoyl-D- <i>erythro</i> -sphingosine
2084	N-(30-Linoleoyloxy-triacontanoyl)-sphingosine
2208	N-(32-Linoleoyloxy-dotriacontanoyl)-sphingosine-D <sub>3</sub>
2201	N- <i>omega</i> -CD <sub>3</sub> -Octadecanoyl-D- <i>erythro</i> -sphingosine
1916	N-Tetracosanoyl-D- <i>erythro</i> -sphingosine
2049	N-Triacontanoyl-D- <i>erythro</i> -sphingosine

## Phytosphingosines

Catalog No.	Product Name
2094	N-(R)- <i>alpha</i> -Hydroxytetracosanoyl-phytosphingosine
2095	N-(S)- <i>alpha</i> -Hydroxytetracosanoyl-phytosphingosine
2135	N-(30-Linoleoyloxy-triacontanoyl)-phytosphingosine
2210	N- <i>omega</i> -CD <sub>3</sub> -Octadecanoyl-phytosphingosine
2036	N-Tetracosanoyl-phytosphingosine

## Dihydrosphingosines

Catalog No.	Product Name
2098	N-(R)- <i>alpha</i> -Hydroxytetracosanoyl-D- <i>erythro</i> -dihydrosphingosine
2099	N-(S)- <i>alpha</i> -Hydroxytetracosanoyl-D- <i>erythro</i> -dihydrosphingosine
2202	N- <i>omega</i> -CD <sub>3</sub> -Octadecanoyl-D- <i>erythro</i> -dihydrosphingosine
2093	N-Tetracosanoyl-D- <i>erythro</i> -dihydrosphingosine

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