

Certificate of Analysis

CER5-2'S(d9)

N-(2'-(S)-hydroxypalmitoyl(d9)) D-erythro-sphingosine

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 $\begin{tabular}{lll} \textbf{Molecular Weight} & 562.956 \\ \textbf{Chemical Formula} & $C_{34}H_{58}D_9NO_4$ \\ \textbf{Physical State} & Powder \\ \textbf{Storage} & -20^{\circ}C \\ \end{tabular}$

Expiration Date One year from date of receipt

M Lot Number 6137PGB010

Avanti Lot Number 860847P-1MG-B-010

| ANALYSIS | SPECIFICATION | RESULTS |
|-----------------------------------|--|--------------------------------|
| Physical examination | Powder : White solid which contains no foreign matter. | Pass |
| TLC (9:1 Chloroform: Methanol) | >99% Purity Ninhydrin: negative lodine: one major spot Phosphorus: negative Charring: positive Water dip: one major spot | All Pass |
| Proton NMR | NMR spectrum consistent with structure | Pass |
| Mass Spectroscopy | [M+H] ⁺ = 563.956 ± 1 amu | [M+H] ⁺ = 563.9 amu |

Approved by: