Brain PI(4,5)P2
L-α-phosphatidylinositol-4,5-bisphosphate (Brain, Porcine) (ammonium salt)
840046P-5mg

Molecular Weight: 1096.385 (average based on fatty acid distribution in product)
Physical State: Powder
Storage: -20°C
Expiration Date: Three months from date of receipt
M Lot Number: 5507PHC069
Avanti Lot Number: 840046P-5MG-C-069

<table>
<thead>
<tr>
<th>ANALYSIS</th>
<th>SPECIFICATION</th>
<th>RESULTS</th>
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<td>Physical Examination</td>
<td><strong>Powder:</strong> White solid which contains no foreign matter</td>
<td>Pass</td>
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</table>
| **TLC** (45:35:7:7:2:3 Chloroform: Methanol: Water: Ammonium Hydroxide) | >99% Purity
Ninhydrin: negative
Iodine: one major spot
Phosphorus: positive
Charring: positive
Water dip: one major spot | All Pass  |
| UV Oxidation                 | NMT 5% total all wavelengths                 | 1.40% total          |
| Phosphorus Assay             | 95-105% recovery phosphorus                  | 99.4% recovery       |
| Proton NMR                   | NMR spectrum consistent with structure        | Consistent with structure |
| Phosphorus NMR               | NMR spectrum consistent with structure        | Consistent with structure |
| Calcium (ICP/MS)             | NMT 500ppm                                   | None Detected        |
| Mass Spectroscopy            | **[M-3NH\textsubscript{4}+2H\textsuperscript{+}] = 1045.385 ± 1 amu**
**[M-3NH\textsubscript{4}+H\textsuperscript{+}]\textsuperscript{2} = 522.193 ± 1 amu** (predominant species) | **[M-3NH\textsubscript{4}+2H\textsuperscript{+}] = 1045.8 amu**
**[M-3NH\textsubscript{4}+H\textsuperscript{+}]\textsuperscript{2} = 522.9 amu** |

Approved By: [Signature]

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