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

840046P-10mg

<table>
<thead>
<tr>
<th>Molecular Weight</th>
<th>1096.385 (average based on fatty acid distribution in product)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Powder</td>
</tr>
<tr>
<td>Storage</td>
<td>-20°C</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Three months from date of receipt</td>
</tr>
<tr>
<td>M Lot Number</td>
<td>5507PIA074</td>
</tr>
<tr>
<td>Avanti Lot Number</td>
<td>840046P-10MG-A-074</td>
</tr>
</tbody>
</table>

### ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>SPECIFICATION</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Examination</td>
<td>Powder: White solid which contains no foreign matter</td>
<td>Pass</td>
</tr>
<tr>
<td>TLC</td>
<td>&gt;99% Purity</td>
<td>All Pass</td>
</tr>
<tr>
<td>(45:35:7.7:2.3 Chloroform: Methanol: Water: Ammonium Hydroxide)</td>
<td>Ninhydrin: negative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iodine: one major spot</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phosphorus: positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charring: positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water dip: one major spot</td>
<td></td>
</tr>
<tr>
<td>UV Oxidation</td>
<td>NMT 5% total all wavelengths</td>
<td>0.78% total</td>
</tr>
<tr>
<td>(prepare sample in methanol)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proton NMR</td>
<td>NMR spectrum consistent with structure</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Phosphorus NMR</td>
<td>NMR spectrum consistent with structure</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Calcium (ICP/MS)</td>
<td>NMT 500 ppm</td>
<td>None Detected</td>
</tr>
<tr>
<td>Mass Spectroscopy</td>
<td>[M-3NH₄⁺2H]⁻ = 1045.385 ± 1 amu</td>
<td>[M-3NH₄⁺2H]⁻ = 1046.0 amu</td>
</tr>
<tr>
<td></td>
<td>[M-3NH⁺⁺H]⁻ = 522.193 ± 1 amu (predominant species)</td>
<td>[M-3NH⁺⁺H]⁻ = 522.8 amu</td>
</tr>
</tbody>
</table>

Approved By:

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