1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $\text{C}_{10}\text{H}_{15}\text{NO}_4.\frac{1}{4}\text{H}_2\text{O}$

Batch Molecular Weight: 217.73

Physical Appearance: White solid

Solubility: 1eq. NaOH to 100 mM water to 25 mM with gentle warming

Storage: Store at RT

Batch Molecular Structure:

![Molecular Structure Image]

2. ANALYTICAL DATA

TLC: $R_t = 0.4 \text{ (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])}$

HPLC: Shows 98.7% purity

$^1\text{H NMR}$: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -17.5 \text{ (Concentration = 1, Solvent = Water)}$

Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>55.16</td>
<td>55.2</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>7.17</td>
<td>7.18</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>6.43</td>
<td>6.47</td>
</tr>
</tbody>
</table>

Certificate of Analysis

Print Date: Apr 15th, 2019
Product Name: Kainic acid
CAS Number: 487-79-6
IUPAC Name: (2S,3S,4S)-Carboxy-4-(1-methylethenyl)-3-pyrrolidineacetic acid

Description:
Selective agonist at kainate receptors. Potent excitant and neurotoxin. Also available as part of the Kainate Receptor Tocriset™.

Physical and Chemical Properties:
Batch Molecular Formula: C_{10}H_{15}NO_{4}·\frac{1}{4}H_{2}O
Batch Molecular Weight: 217.73
Physical Appearance: White solid
Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:
1eq. NaOH to 100 mM water to 25 mM with gentle warming
When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References: