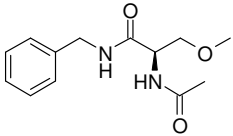




Certificate of Analysis

| Axon Catalogue ID | 1444 | Batch Number: | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|-------------------------------------|--------------------------|-----------------|---------|-------|------|-------|--------------------------|-----------|--|--|------------|----------|--|--|------------|------|-------|-------|---------|------|--|--|------------|--|--|
| Product Name: | Lacosamide | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IUPAC Name: | (R)-2-Acetylamino-N-benzyl-3-methoxy-propionamide | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Structure: |  | Amount: | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAS number: | 175481-36-4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Batch Molecular Formula: | C ₁₃ H ₁₈ N ₂ O ₃ | Batch MW: | 250.30 | | | | | | | | | | | | | | | | | | | | | | | | |
| Appearance: | White solid | Observed m.p.: | 143-145 °C | | | | | | | | | | | | | | | | | | | | | | | | |
| TLC (R_f): | 0.3 DCM/Methanol (9:1) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chemical Purity: | >99% | Wavelength for purity check: | 196 nm | | | | | | | | | | | | | | | | | | | | | | | | |
| Optical Purity (ee): | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ¹H-NMR (300 MHz): | Analytical data confirm chemical structure | Solvent: | CDCl ₃ | | | | | | | | | | | | | | | | | | | | | | | | |
| Mass Spec: | Analytical data confirm chemical structure | Ion: | 314 m/z | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Method: | ESI:M+1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Microanalysis: | Not available | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Storage Conditions: | Desiccate at +4 °C | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solubility Data: | <table><thead><tr><th>Solvent</th><th>Solubility (mg/ml)</th><th>Solubility (mM)</th><th>Remarks</th></tr></thead><tbody><tr><td>Water</td><td>9.50</td><td>37.95</td><td>Slight warming required.</td></tr><tr><td>1eq. NaOH</td><td></td><td></td><td>Not tested</td></tr><tr><td>1eq. HCl</td><td></td><td></td><td>Not tested</td></tr><tr><td>DMSO</td><td>20.00</td><td>79.90</td><td>Soluble</td></tr><tr><td>EtOH</td><td></td><td></td><td>Not tested</td></tr></tbody></table> | Solvent | Solubility (mg/ml) | Solubility (mM) | Remarks | Water | 9.50 | 37.95 | Slight warming required. | 1eq. NaOH | | | Not tested | 1eq. HCl | | | Not tested | DMSO | 20.00 | 79.90 | Soluble | EtOH | | | Not tested | | |
| Solvent | Solubility (mg/ml) | Solubility (mM) | Remarks | | | | | | | | | | | | | | | | | | | | | | | | |
| Water | 9.50 | 37.95 | Slight warming required. | | | | | | | | | | | | | | | | | | | | | | | | |
| 1eq. NaOH | | | Not tested | | | | | | | | | | | | | | | | | | | | | | | | |
| 1eq. HCl | | | Not tested | | | | | | | | | | | | | | | | | | | | | | | | |
| DMSO | 20.00 | 79.90 | Soluble | | | | | | | | | | | | | | | | | | | | | | | | |
| EtOH | | | Not tested | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality controller: | M. Brandsma, MSc. | Date: | 25/6/2009 | | | | | | | | | | | | | | | | | | | | | | | | |

The purity of Axon products is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to info@axonmedchem.com indicating Axon Catalogue ID and Batch number.

Caution: Not fully tested. For research use only