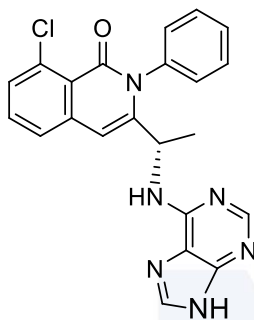


**Northeast Business Center**

7301 E. 90th Street, Suite 117, Indianapolis, IN 46256, USA

Phone: 317.598.0828 Fax: 317.598.0835 www.chemietek.com

Certificate of Analysis



| | |
|--------------------------------|--|
| Product Name: | IPI-145 |
| Synonym | Duvelisib, INK-1197 |
| CAS No: | 1201438-56-3 |
| Prod. No: | CT-IPI145 |
| Lot No: | 02 |
| Batch Empirical Formula | C ₂₂ H ₁₇ ClN ₆ O · 0.8H ₂ O |
| Batch Empirical Weight | 431.3 |
| Solubility | Soluble in DMSO (21.6mg/ml, 50 mM) at 25 °C |
| Storage | Store at 0 °C (short term), - 20 °C (long term), desiccated |

| | |
|----------------------------|---|
| Appearance | White to off-white powder |
| Quality Control | ¹ HNMR: [✓] HPLC: [✓] Chiral HPLC: [✓] Quantitative Elemental Analysis [✓]: C₂₂H₁₇ClN₆O · 0.8H₂O Calculated: C: 61.27% H: 4.35% N: 19.49% Found: C: 61.38% H: 4.28 % N: 19.45% |
| Chemical Purity | >99% (HPLC at 214 and 254 nm) |
| Optical Purity (ee) | >99% Chiral HPLC |