

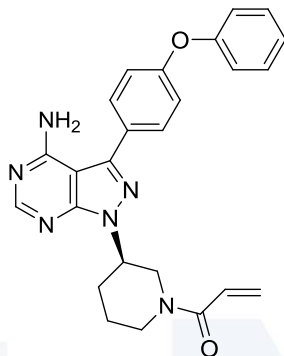


Northeast Business Center

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## Certificate of Analysis



<b>Product Name:</b>	<b>PCI-32765</b>
<b>Synonym:</b>	Ibrutinib
<b>CAS No:</b>	936563-96-1
<b>Prod. No:</b>	CT-PCI327
<b>Lot No:</b>	04
<b>Molecular Formula</b> <b>Molecular Weight</b>	C <sub>25</sub> H <sub>24</sub> N <sub>6</sub> O <sub>2</sub> 440.5
<b>Solubility</b>	Soluble in DMSO (> 44.1 mg/ml, > 100 mM)
<b>Storage</b>	Store at 0 °C (short term), -20 °C (long term), desiccated

<b>Appearance</b>	White powder, re-crystallized
<b>Quality Control</b>	MS: [✓] <sup>1</sup> HNMR: [✓] HPLC: [✓] Chiral HPLC: [✓] <b>Quantitative Elemental Analysis: C<sub>25</sub>H<sub>24</sub>N<sub>6</sub>O<sub>2</sub> [✓]</b> Calculated: C: 68.17% H: 5.49% N: 19.08% Found: C: 67.88% H: 5.47% N: 19.18%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>25</sup> = - 128 ° (c 0.87, Chloroform)
<b>Chemical Purity</b>	>99.5% (HPLC at 214 and 254 nm)
<b>Optical Purity</b>	100% (Chiral HPLC)