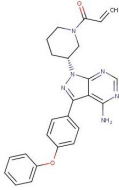


**ChemShuttle**

Synthesizing Life

捷化医药

CERTIFICATE OF ANALYSIS

Product name	Ibrutinib (PCI-32765)		
CAS NO.	936563-96-1		
Lot No.	104516	Quantity	5 kg
Date of Manufacture	Jan-30-2018	Date printed	Jan-30-2018
Items	Standard		Results
Appearance	White to Off-white power		White power
Assay (HPLC)	≥99.0%		99.8%
Total impurities	≤1.0%		0.2%
Single impurity	≤0.2%		0.05%
Chiral purity	≥99.0%		99.1%
KF	≤1.0%		0.09%
Sovent	MTBE≤3000ppm THF≤720PPm methyl alcohol≤3000ppm EA:≤5000ppm 2-Me-THf≤720ppm methylbenzene≤400ppm		Conforms
Attention	Store in a cool dry place		
Conclusion	Accords with the enterprise standard		

Analyst: Weiyin Zhang

Checker: Shuyin Gu

Confirmed by: Yanhua Ming

USAChemShuttle
3916 Trust Way, Hayward, CA 94545
Phone: +1 (510) 999 8905
sales@ChemShuttle.com
www.ChemShuttle.com**China**无锡捷化医药科技有限公司
江苏省无锡市惠山大道 1699 号
Phone: +86 (510) 8358 8313
sales@ChemShuttle.com
www.ChemShuttle.com