



Certificate of analysis

Product name: Bortezomib

Cas number: 179324-69-7

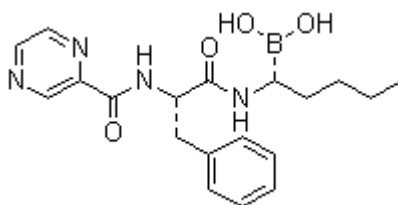
Molecular Formula: C₁₉H₂₅BN₄O₄

Molecular Weight: 384.24

Date of production: May. 18, 2017

Batch NO: 20170518

Exp Date: May. 17, 2019



Chemical structure:

Items		Specifications	Results
Appearance		White or off-white powder	white powder
Identification	H NMR	The H NMR spectra of standard and sample is concordant.	Conforms
	C NMR	The C NMR spectra of standard and sample is concordant.	
	MS	The MS spectra of standard and sample is concordant.	
Loss on drying		≤1.0%	0.25%
Optical Rotation		~45°C~55°C	~53.2°C
Heavy metals		≤0.002%	<0.002%
Related substances		Unspecified impurity ≤0.1% Total impurity ≤1.0%	0.02% 0.09%
Residual solvents		Methanol ≤0.3% Dichloromethane ≤0.06% Hexane ≤0.029% Ethyl acetate ≤0.5%	N.D N.D N.D 0.03%
Assay(Hplc)		≥99.0%	99.9%

Conclusion: It complies with the Enterprise Standard.