Add: Economic Developed Zone of Taizhou Zhejiang China.

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## Certificate of analysis

Product name: Caspofungin acetate

CAS NO:179463-17-3

 $Molecular\ Formula: C_{52}H_{88}N_{10}O_{15}\cdot 2(C_2H_4O_2)$ 

Molecular Weight: 1213.42

Date of production: Aug. 18,2017

Batch NO:20170818

Exp Date:Aug.17,2019

Chemical structure:

Items	Specifications	Test results
Description	White or almost white powder	complies
Identification	IR HPLC	complies
PH	5.0~7.0	6.5
Water	≤10.0	7.50%
Solution color and clarity	Solution should be clear colorless	complies
Related substances I	Impurity A ≤0.1%	ND
	Impurity B ≤0.1%	ND
	Impurity D ≤0.3%	0.17%
	Impurity E ≤0.1%	ND
	Unspecified impurity F ≤0.1%	0.03%
	Unspecified impurity G ≤0.1%	ND
	Pneumocandin BO ≤0.1%	ND
	Each of unspecified impurity ≤0.1%	0.04%
	Total impurity ≤1.0%	0.24%
Related substances II	Impurity C ≤0.1%	0.03%
Heavy Metals	≤10ppm	complies
Acetic acid	9.0%~11.0%(calculated on anhydrous basis)	10.1%
Ethanediamine	≤0.1%	0.02%
Residual solvents	Methanol:≤ 3000ppm	ND
	Ethanol:≤5000ppm	3250PPM
	Acetonitrile: ≤ 410ppm	6PPM
	Ethyl acetate: ≤5000ppm	268PPM
	Tetrahydrofuran:≤720ppm	ND
Residue on ignition	≤0.1%	0.05%
Bacterial Endotoxins	<2EU/mg	complies
Microbial Limit	Total Aerobic≤100cfu/g	complies
	Total Yeasts and Molds≤100cfu/g	
Assay	97.0%~102.0%(calculated on anhydrous and	99.7%
	solvents-free basis)	

Store in a tight container at -20° C

Conclusion: It complies with the Enterprise Standard.

Analyst:Zhao Checker:Liu Q.C Director. Fang