

## Certificate of Analysis

COA NO.: 2019-03-01-03

**Vancomycin HCl USP/EP**

BATCH NUMBER	97181107	TEST DATE	03-07-2019
BATCH SIZE	151.05Kg	MANUFACTURE DATE	12-01-2018
QUANTITY	100g	EXPIRATION DATE	11-30-2020

Storage Condition: Preserve in tight, light resistant containers, Store at 2-8°C

<u>TEST</u>	<u>SPECIFICATION</u>	<u>RESULT</u>
Appearance (USP/EP)	White or almost white powder	<u>Almost white powder</u>
Identification A: IR (USP)	The IR absorption spectrum of sample recorded, as KBr pellet must exhibit maxima at the same wave numbers as exhibited by the Vancomycin hydrochloride working standard spectrum	<u>Conforms</u>
Identification B: HPLC (EP)	The retention time of the major peak of the sample solution corresponds to that of the reference standard	<u>Conforms</u>
Identification C: Chlorides (EP)	Meets EP tests for chlorides	<u>Conforms</u>
Solubility (USP/EP)	Freely soluble in water; slightly soluble in ethanol(96%), insoluble in ether and chloroform	<u>Conforms</u>
pH (USP)	2.5 to 4.5 (50 mg/mL in water)	<u>2.96</u>
Appearance of Solution (EP)	The solution is clear and its absorbance at 450 nm is not greater than 0.10.	<u>0.029</u>
Water (USP)	Not More Than 5.0%	<u>4.14%</u>
Assay(USP/Microbiological)	Not Less Than 900 µg/mg on the anhydrous basis	<u>1043µg/mg</u>
Assay(EP/Microbiological)	Not Less Than 1050IU/mg on the anhydrous basis	<u>1104IU/mg</u>
Composition of Vancomycin (EP)	Vancomycin B Not Less Than 93.0%	<u>95.1%</u>
Related Substances:		
Monodechlorovancomycin (USP)	Not More Than 4.7%	<u>1.6%</u>
N-demethyl vancomycin B (EP Impurity A)	Not More Than 4.0%	<u>0.93%</u>
Desamidovancomycin B (EP Impurity B)	Not More Than 4.0%	<u>0.28%</u>
Aglyucovancomycin B (EP Impurity C)	Not More Than 4.0%	<u>0.10%</u>
Desvancosaminyl vancomycin B (EP Impurity D)	Not More Than 4.0%	<u>0.32%</u>
Any Other Individual Impurity	Not More Than 4.0%	<u>0.63%</u>
Total Impurities	Not More Than 7.0%	<u>5.00%</u>

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**Vancomycin HCl USP/EP**

BATCH NUMBER	97181107	TEST DATE	03-07-2019
BATCH SIZE	151.05Kg	MANUFACTURE DATE	12-01-2018
QUANTITY	100g	EXPIRATION DATE	11-30-2020

**Storage Condition:** Preserve in tight, light resistant containers, Store at 2-8°C

Sulfated Ash (EP)	Not More Than 1.0%	<u>0.05%</u>
Residue on Ignition	Not More Than 1.0%	<u>0.07%</u>
Bacterial Endotoxins (USP/EP)	Less Than 0.25 EU/mg	<u>&lt;0.1 EU/mg</u>
Total Aerobic Microbial Count (USP/EP)	Not More Than 100 cfu/g	<u>Conforms</u>
Total Combined Yeast and Mould Count (USP/EP)	Not More Than 10 cfu/g	<u>Conforms</u>

**Manufactured By: Chongqing Daxin Pharmaceutical Co., Ltd.**

**FINAL BATCH DISPOSITION:** Approved (✓) ☒

By: [Signature]  
2019.04.09

Analyst/Date:

Checker/Date:

Supervisor/Date:

[Signature]  
2019.04.09

[Signature]  
2019.04.09

[Signature]  
2019.04.09

# Chongqing Daxin Pharmaceutical Co., Ltd.

No. 21, Founder Road, Shuitu Town, BeiBei District, Chongqing 400714, China

Phone Number: +86-23-61301056

## Certificate of Analysis

COA NO.: 2019-03-02-02

**Vancomycin HCl USP/EP**

BATCH NUMBER	97181108	TEST DATE	03-07-2019
BATCH SIZE	150.55Kg	MANUFACTURE DATE	12-03-2018
QUANTITY	100g	EXPIRATION DATE	12-02-2020

Storage Condition: Preserve in tight, light resistant containers, Store at 2-8°C

TEST	SPECIFICATION	RESULT
Appearance (USP/EP)	White or almost white powder	<u>Almost white powder</u>
Identification A: IR (USP)	The IR absorption spectrum of sample recorded, as KBr pellet must exhibit maxima at the same wave numbers as exhibited by the Vancomycin hydrochloride working standard spectrum	<u>Conforms</u>
Identification B: HPLC (EP)	The retention time of the major peak of the sample solution corresponds to that of the reference standard	<u>Conforms</u>
Identification C: Chlorides (EP)	Meets EP tests for chlorides	<u>Conforms</u>
Solubility (USP/EP)	Freely soluble in water; slightly soluble in ethanol(96%), insoluble in ether and chloroform	<u>Conforms</u>
pH (USP)	2.5 to 4.5 (50 mg/mL in water)	<u>3.13</u>
Appearance of Solution (EP)	The solution is clear and its absorbance at 450 nm is not greater than 0.10.	<u>0.017</u>
Water (USP)	Not More Than 5.0%	<u>3.84%</u>
Assay(USP/Microbiological)	Not Less Than 900 µg/mg on the anhydrous basis	<u>1052µg/mg</u>
Assay(EP/Microbiological)	Not Less Than 1050IU/mg on the anhydrous basis	<u>1097IU/mg</u>
Composition of Vancomycin (EP)	Vancomycin B Not Less Than 93.0%	<u>95.7%</u>
Related Substances:		
Monodechlorovancomycin (USP)	Not More Than 4.7%	<u>1.8%</u>
N-demethyl vancomycin B (EP Impurity A)	Not More Than 4.0%	<u>0.72%</u>
Desamidovancomycin B (EP Impurity B)	Not More Than 4.0%	<u>0.16%</u>
Aglyucovancomycin B (EP Impurity C)	Not More Than 4.0%	<u>0.04%</u>
Desvancosaminyl vancomycin B (EP Impurity D)	Not More Than 4.0%	<u>0.22%</u>
Any Other Individual Impurity	Not More Than 4.0%	<u>0.60%</u>
Total Impurities	Not More Than 7.0%	<u>4.07%</u>

## Certificate of Analysis

**Vancomycin HCl USP/EP**

BATCH NUMBER	97181108	TEST DATE	03-07-2019
BATCH SIZE	150.55Kg	MANUFACTURE DATE	12-03-2018
QUANTITY	100g	EXPIRATION DATE	12-02-2020

Storage Condition: Preserve in tight, light resistant containers, Store at 2-8°C

Sulfated Ash (EP)	Not More Than 1.0%	<u>0.02%</u>
Residue on Ignition	Not More Than 1.0%	<u>0.02%</u>
Bacterial Endotoxins (USP/EP)	Less Than 0.25 EU/mg	<u>&lt;0.1EU/mg</u>
Total Aerobic Microbial Count(USP/EP)	Not More Than 100 cfu/g	<u>Conforms</u>
Total Combined Yeast and Mould Count(USP/EP)	Not More Than 10 cfu/g	<u>Conforms</u>

**Manufactured By: Chongqing Daxin Pharmaceutical Co., Ltd.**

FINAL BATCH DISPOSITION: Approved (✓) ☒

By: 382274  
2019.04.09

Analyst/Date:

Checker/Date:

Supervisor/Date:

382274  
2019.04.09

382274  
2019.04.09

382274  
2019.04.09



## Certificate of Analysis

COA NO.: 2019-03-03-02

### Vancomycin HCl USP/EP

BATCH NUMBER	97181201	TEST DATE	03-07-2019
BATCH SIZE	151.67Kg	MANUFACTURE DATE	12-05-2018
QUANTITY	100g	EXPIRATION DATE	12-04-2020

Storage Condition: Preserve in tight, light resistant containers, Store at 2-8°C

TEST	SPECIFICATION	RESULT
Appearance (USP/EP)	White or almost white powder	<u>Almost white powder</u>
Identification A: IR (USP)	The IR absorption spectrum of sample recorded, as KBr pellet must exhibit maxima at the same wave numbers as exhibited by the Vancomycin hydrochloride working standard spectrum	<u>Conforms</u>
Identification B: HPLC (EP)	The retention time of the major peak of the sample solution corresponds to that of the reference standard	<u>Conforms</u>
Identification C: Chlorides (EP)	Meets EP tests for chlorides	<u>Conforms</u>
Solubility (USP/EP)	Freely soluble in water; slightly soluble in ethanol(96%), insoluble in ether and chloroform	<u>Conforms</u>
pH (USP)	2.5 to 4.5 (50 mg/mL in water)	<u>3.07</u>
Appearance of Solution (EP)	The solution is clear and its absorbance at 450 nm is not greater than 0.10.	<u>0.038</u>
Water (USP)	Not More Than 5.0%	<u>3.68%</u>
Assay(USP/Microbiological)	Not Less Than 900 µg/mg on the anhydrous basis	<u>1047µg/mg</u>
Assay(EP/Microbiological)	Not Less Than 1050IU/mg on the anhydrous basis	<u>1094IU/mg</u>
Composition of Vancomycin (EP)	Vancomycin B Not Less Than 93.0%	<u>95.5%</u>
Related Substances:		
Monodechlorovancomycin (USP)	Not More Than 4.7%	<u>1.1%</u>
N-demethyl vancomycin B (EP Impurity A)	Not More Than 4.0%	<u>0.91%</u>
Desamidovancomycin B (EP Impurity B)	Not More Than 4.0%	<u>0.08%</u>
Aglucovancomycin B (EP Impurity C)	Not More Than 4.0%	<u>0.13%</u>
Desvancosaminyl vancomycin B (EP Impurity D)	Not More Than 4.0%	<u>0.21%</u>
Any Other Individual Impurity	Not More Than 4.0%	<u>0.56%</u>
Total Impurities	Not More Than 7.0%	<u>4.28%</u>

## Certificate of Analysis

**Vancomycin HCl USP/EP**

BATCH NUMBER	97181201	TEST DATE	03-07-2019
BATCH SIZE	151.67Kg	MANUFACTURE DATE	12-05-2018
QUANTITY	100g	EXPIRATION DATE	12-04-2020

**Storage Condition:** Preserve in tight, light resistant containers, Store at 2-8°C

Sulfated Ash (EP)	Not More Than 1.0%	<u>0.04%</u>
Residue on Ignition	Not More Than 1.0%	<u>0.03%</u>
Bacterial Endotoxins (USP/EP)	Less Than 0.25 EU/mg	<u>&lt;0.1EU/mg</u>
Total Aerobic Microbial Count(USP/EP)	Not More Than 100 cfu/g	<u>Conforms</u>
Total Combined Yeast and Mould Count(USP/EP)	Not More Than 10 cfu/g	<u>Conforms</u>

**Manufactured By: Chongqing Daxin Pharmaceutical Co., Ltd.**

**FINAL BATCH DISPOSITION:** Approved (✓) ☒

By: [Signature]  
2019.04.09

Analyst/Date:

Checker/Date:

Supervisor/Date:

[Signature]  
2019.04.09

[Signature]  
2019.04.09

[Signature]  
2019.04.09