

Certificate of Analysis

Product Name	Imipenem hydrate
Catalog No.	V22503
Batch No.	V2250301

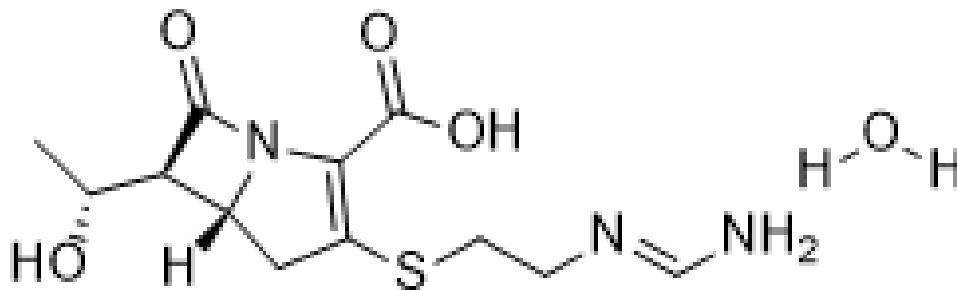
1. Physical and Chemical Properties

Appearance	White to almost white or pale yellow powder
Molecular Formula	C ₁₂ H ₁₉ N ₃ O ₅ S
Molecular Weight	317.3614
Purity	=99.45%
CAS No.	74431-23-5
Production Date	2025/02/15

2. Analytical Data

Test Item	Specification	Result
HPLC	≥98%	=99.45%
Characteristics	White to almost white or pale yellow powder	Complies
Absorbance	≤0.02	0.01
Specific rotation	+84° ~ +89° ——USP +90° ~ +95° ——CP	+85.7° +91°
Related substances	Thienamycin ≤1.0% Individual impurity ≤0.5% Other Max single impurity ≤0.1% Total impurities ≤1.0%	0.44% 0.073% 0.054% 0.57%
PH	4.5~7.5	6.2
Water	5.0~8.0%	6.9%
Residue on ignition	≤0.2%	0.1%
Heavy metals	≤20ppm	<20ppm
Bacterial Endotoxins	≤0.06EU/mg	<0.05EU/mg
Sterility	Complies	Complies
GC Residual solvent	Methanol ≤3000ppm Acetone ≤5000ppm Methylene Chloride ≤600ppm Acetonitrile ≤410ppm Tetrahydrofuran ≤720ppm Acetic acid ≤5000ppm 4-Methylmorpholine ≤70ppm	ND 1002ppm ND ND ND 23ppm 0.07ppm
Conclusion	Complies with USP-NF2023 standard	
Storage	Preserve in tight containers and store at 2~8°C in a dry place	

3. Structure



4. Storage Condition

Storage Condition	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month
Note: This product is not stable in solution, please use freshly prepared working solution for optimal results.			

Products are for research use only • Not for human or veterinary use

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