

Certificate of Analysis



Product Identification		Chemical Structure
Catalog number	HB4608	 0.5 x CH ₃ CH ₂ OH HCl 0.5 x H ₂ O
Compound name	Doxycycline hyclate	
Chemical name	(4S,4aR,5S,5aR,6R,12aS)-4-(Dimethylamino)-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-1,4,4a,5,5a,6,11,12a-octahydrotriacene-2-carboxamide hydrochloride hemihydrate	
Batch number	E2365-1-1	
Batch molecular formula	C ₂₂ H ₂₄ N ₂ O ₈ ·HCl·0.5H ₂ O·0.5C ₂ H ₆ O	
Batch molecular weight	512.94	

Method	QC requirement	QC Result
HPLC	Reverse Phase HPLC shows >94% purity	Meets specification: 99.0%
Optical rotation	Compound shows a specific rotation ($[\alpha]_D$) in 10mM HCl/MeOH between -105° and -120°	Meets specification: $[\alpha]_D = -112^\circ$ (c=1, 10mM HCl/MeOH).
Karl Fisher titration	KF shows water content between 1.4% and 2.86%	Meets specification; 2.0%
FT-IR spectrum	Consistent with structure	Meets specification
Physical appearance	Yellow to pale yellow solid	Meets specification: Yellow solid

Produced by

Signature

Passed by

Signature

Date

19/09/2023

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.