

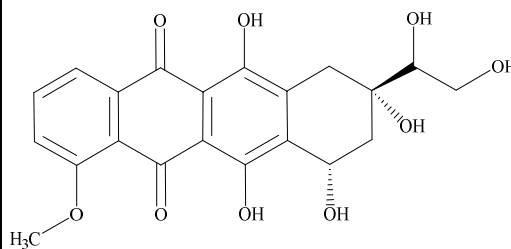
Certificate of Analysis

Certificate No.: 20180720021

Date: July 20, 2018

Retest date: July 18, 2021

Compound Name: Doxorubicinolone (Mixture of Diastereomers)	
Synonyms:	(8S,10S)-8-((R)-1,2-dihydroxyethyl)-6,8,10,11-tetrahydroxy-1-methoxy-7,8,9,10-tetrahydrotetracene-5,12-dione
TLC Catalogue Number:	D-3420
CAS Number:	210837-88-0
Molecular Weight:	416.39
Molecular Formula:	C ₂₁ H ₂₀ O ₉
Source:	TLC Pharmaceutical Standards
Source Lot No.:	1959-005A14
Storage Conditions:	Store at 2-8 °C.
Solubility:	Methanol, DMSO



Test Description	Specifications	Results
Visual Description	Red solid	Conforms
Identification		
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	95.7%
Impurity (HPLC)	RT 13.07, 1.9%; RT 13.52, 0.3%; RT 14.62, 1.7%	
Residual Solvents (NMR)	0.4% methanol and 1.9% dimethyl sulfoxide	
Recommendation:	Released.	

Name	Department	Signature	Date
Reviewed and approved by:	Analytical Services		
Approved by:	Quality Assurance		

Attachments: HPLC, MS and NMR spectra.