



# Certificate of analysis

Product name: Etoposide

Cas number: 33419-42-0

Molecular Formula:  $C_{29}H_{32}O_{13}$

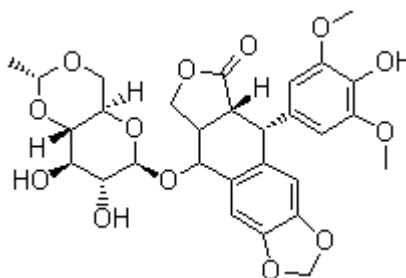
Molecular Weight: 588.56

Date of production: Nov.08,2018

Batch NO:20181108

Exp Date: Nov.07,2020

Chemical structure:



Items	Specifications	Results
Appearance	White and formless powder or crystalline powder	Conforms
Specific Rotation	$[\alpha]_{20D} = -110^{\circ} \sim -118^{\circ}$	-116°
Related substance(HPLC)	Max impurity $\leq 1.0\%$	0.20%
	Total impurities $\leq 2.0\%$	0.26%
Water	$\leq 6.0\%$	2.0%
Residue on ignition	0.1%	0.03%
Heavy metals	$\leq 20\text{ppm}$	Conforms
Residual solvents	Acetone $\leq 5000\text{ppm}$	N.D
	Methanol $\leq 3000\text{ppm}$	N.D
	Methylene chloride $\leq 600\text{ppm}$	N.D
	Ethanol $\leq 5000\text{ppm}$	500ppm
Assay(HPLC)	97.0%~103.0%	99.7%

**Conclusion: It complies with the USP36 Standard.**

Analyst: Zhao

Checker: Liu

Q.C Director: Fang F

