



### Certificate of Analysis

Etoposide 4'-Phosphate

Brand Name :Biochempartner

M.Wt: 668.54

Formula: C<sub>29</sub>H<sub>33</sub>O<sub>16</sub>P

Solubility: DMSO

Purity: >99%

Storage: at -20°C 2 years

CAS No.: 117091-64-2

Batch No.:20130601

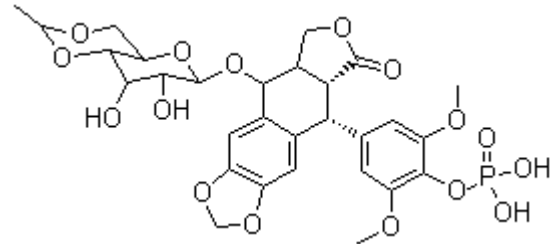
Mfg. Date:20130605

Release date:20130615

Retest dated:20130604

Quantity:0.160kg

Analysis reference:in-house specification



Item	Specification	Results
	<b>Characters</b>	
<b>Appearance</b>	A white or almost white crystalline powder	Comply
<b>Specific optical rotation</b>	-87.0°~-93.0°	-91.0°
	<b>Identification</b>	
<b>UV</b>	Should comply	Comply
<b>HPLC</b>	Should comply	Comply
<b>Reaction</b>	Should comply	Comply
	<b>Related substances</b>	
<b>Lignin P phosphate</b>	≤2.5%	1.1%
<b>Etoposide</b>	≤1.5%	0.6%
<b>Each other single impurity</b>	≤0.3%	0.03%
<b>Total impurity (except lignin P phosphate and etoposide)</b>	≤0.1%	0.09%
<b>clarity and color of solution</b>	Should comply	Comply
<b>Ph</b>	1.8~2.2	2.0

Note: Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk. This item is only for R&D purpose not for commercial business in kilos. Buyers should overview the patent issue in their countries.

<b>Water</b>	≤1.5%	0.9%
<b>Heavy metals</b>	≤20ppm	<20ppm
<b>Residual solvents</b>		
<b>Methanol</b>	≤2000ppm	<2000ppm
<b>Acetonitrile</b>	≤400ppm	Undetected
<b>Ethyl acetate</b>	≤1000ppm	<1000ppm
<b>n-hexane</b>	≤290ppm	Undetected
<b>Ethanol (g/g)</b>	9.0%~15.0%	11.2%
<b>Microbiological</b>		
<b>Bacteria</b>	≤1000CFU/g	<20CFU/g
<b>Mold and yeast</b>	≤100 CFU/g	<20CFU/g
<b>Escherichia coli</b>	Should comply	Abset
<b>Assay</b>	95.0%~105%	99.8%
(calculated on the dried basis)		

Conclusion: Complies with In-house standard.

QA manager :kexianxun

For and on behalf of  
SHANGHAI BIOCHEMPARTNER CO., LIMITED

.....  
Authorized Signature(s)

Kevin



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