



IUPAC Name:

Certificate of Analysis

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Product Name: Etoposide Catalog No.: 1226 Batch No.: 7

CAS Number: 33419-42-0 EC Number: 251-509-1

 $[5R-[5\alpha,5a\beta,8a\alpha,9\beta(R^*)]]-9-[(4,6-\emph{O}-Ethylidene-\beta-D-glucopyranosyl)oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-\emph{d}]-1,3-dioxol-6-(5a\emph{H})-one$

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₃₂O₁₃.½H₂O

Batch Molecular Weight: 597.57 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -105.8$ (Concentration = 0.6, Solvent = Chloroform)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 58.29 5.57 Found 58.07 5.59



Product Information

Print Date: Mar 8th 2022

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5-(4-hydroxy-3,5-dimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6-(5aH)-one

Description:

Etoposide is a DNA topoisomerase II inhibitor (IC $_{50}$ = 59.2 μ M). Anticancer. Also enhances adeno-associated virus (AAV) transduction of HeLa cells.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₉H₃₂O₁₃.½H₂O

Batch Molecular Weight: 597.57 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Nicolson *et al* (2016) Identification and validation of small molecules that enhance recombinant adeno-associated virus transduction following high-throughput screens. J. Virol. *90* 7019. PMID: 27147738.

Hande et al (1998) Etoposide: four decades of development of a topoisomerase II inhibitor. Eur.J.Cancer 34 1514. PMID: 9893622.

Burden *et al* (1996) Toposiomerase II.etoposide interactions direct the formation of drug-induced enzyme-DNA cleavage complexes. J.Biol.Chem. *271* 29238. PMID: 8910583.