

Certificate of Analysis

Print Date: Apr 6th 2021

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Product Name: Teniposide Catalog No.: 6975 Batch No.: 1

CAS Number: 29767-20-2

IUPAC Name: (5R,5aR,8aR,9S)-5,8,8a,9-Tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[4,6-O-[(R)-2-thienylmethylene]-β-D-

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{32}H_{32}O_{13}S.\frac{1}{2}H_2O$

Batch Molecular Weight: 665.67

Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -102.1$ (Concentration = 1, Solvent = 1:9 MeOH:CHCl3)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 57.74 5 Found 57.43 4.99

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use



Product Information

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

Description:

Teniposide is a topoisomerase II inhibitor and viral transduction enhancer. It induces breaks in double-stranded DNA and prevents DNA repair. Teniposide enhances transduction of recombinant adeno-associated virus 2 (rAAV2) by up to 40-fold in human cells in vitro and by 100-fold in vivo at 24 h post-transduction.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₂H₃₂O₁₃S.½H₂O

Batch Molecular Weight: 665.67 Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

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:

Yusenko et al (2018) A novel cell-based screening assay for small-molecule MYB inhibitors identifies podophyllotoxins teniposide and etoposide as inhibitors of MYB activity. Sci.Rep. 8 13159. PMID: 30177851.

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.

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